Presentation
to the

Associated General Contractors of America

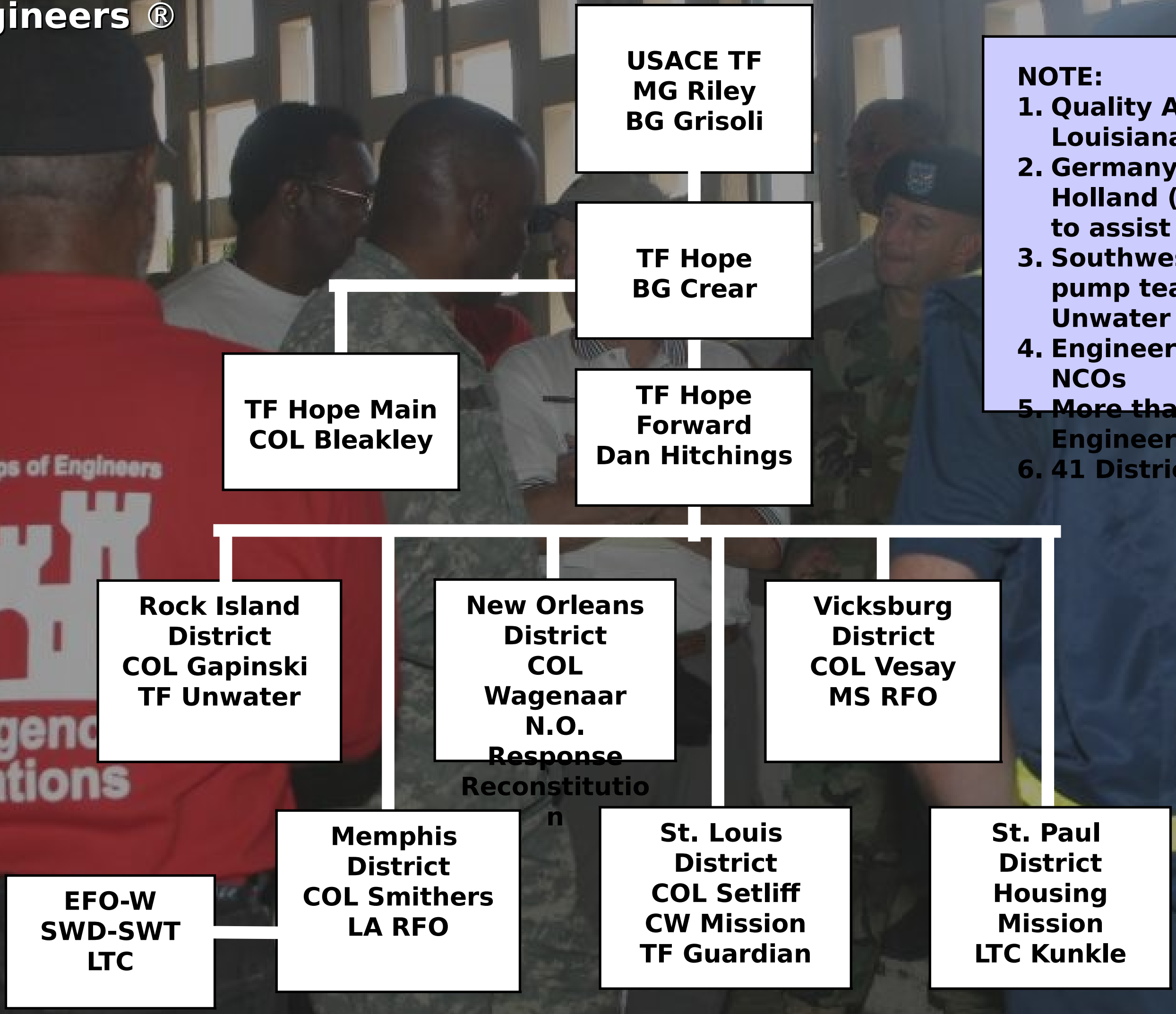
Annual Convention

by

Colonel Duane Gapinski, P.E.
Commander, Rock Island District

March 2006

Organization



USACE TF
MG Riley
BG Grisoli

TF Hope
BG Crear

TF Hope Main
COL Bleakley

TF Hope Forward
Dan Hitchings

Rock Island District
COL Gapinski
TF Unwater

New Orleans District
COL Wagenaar
N.O. Response Reconstitution

Vicksburg District
COL Vesay
MS RFO

EFO-W
SWD-SWT
LTC

Memphis District
COL Smithers
LA RFO

St. Louis District
COL Setliff
CW Mission
TF Guardian

St. Paul District
Housing Mission
LTC Kunkle

NOTE:

1. Quality Assurance augmentation to Louisiana and Mississippi RFOs
2. Germany (70), Luxembourg (9), & Holland (4) - provided pump teams to assist Task Force Unwater
3. Southwestern Division provided a pump team to assist Task Force Unwater
4. Engineer School - 20 officers and NCOs
5. More than 10% of the Corps of Engineers
6. 41 Districts, 8 Divisions, 4 Centers

Mission

Task Force Hope mission areas are:

- Support to Federal Emergency Management Agency
    - Unwatering
    - ESF3 Tasks (ice, water, power, debris removal, temporary roofing, technical assistance)
- Department of Defense response
    - Joint Task Force Katrina
- Inherent Corps of Engineers missions
    - Flood control
    - Navigation
    - Civil works projects
- Reconstitute New Orleans District

US Army Corps
of Engineers ®

Mission Status

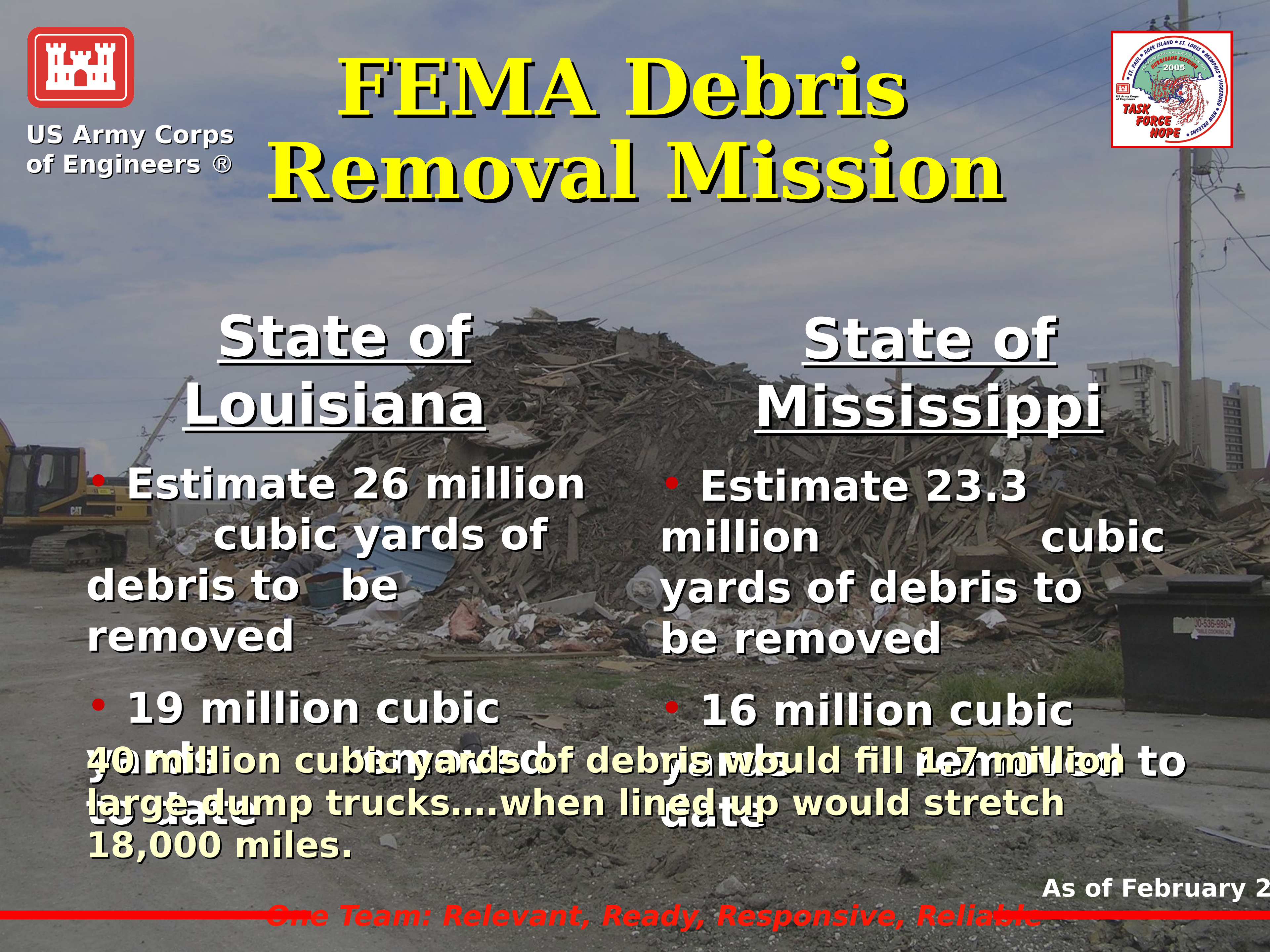
Sustain Lives

- National Response Plan
  - Advance contracts with commodity suppliers
  - Pre-positioned in staging areas
  - Final distribution through local governments
- Water Delivery
  - More than 3,100 truckloads delivered
  - One truckload is ~18,000 liters (serves 3,600)
- Ice Delivery
  - 2,833 truckloads delivered
  - One ice truck = 40,000 lbs of ice, 5 lbs per person (serves 8,000)

US Army Corps
of Engineers ®

Mission Status
Sustain Lives

- Emergency Generators for Critical Public Facilities
  - Hospitals
  - Government buildings
  - Recovery team facilities
- Support Provided
  - 1,337 power assessments completed
  - 418 power installations completed



US Army Corps
of Engineers ®

FEMA Debris Removal Mission

State of Louisiana

- Estimate 26 million cubic yards of debris to be removed
- 19 million cubic yards removed to date

State of Mississippi

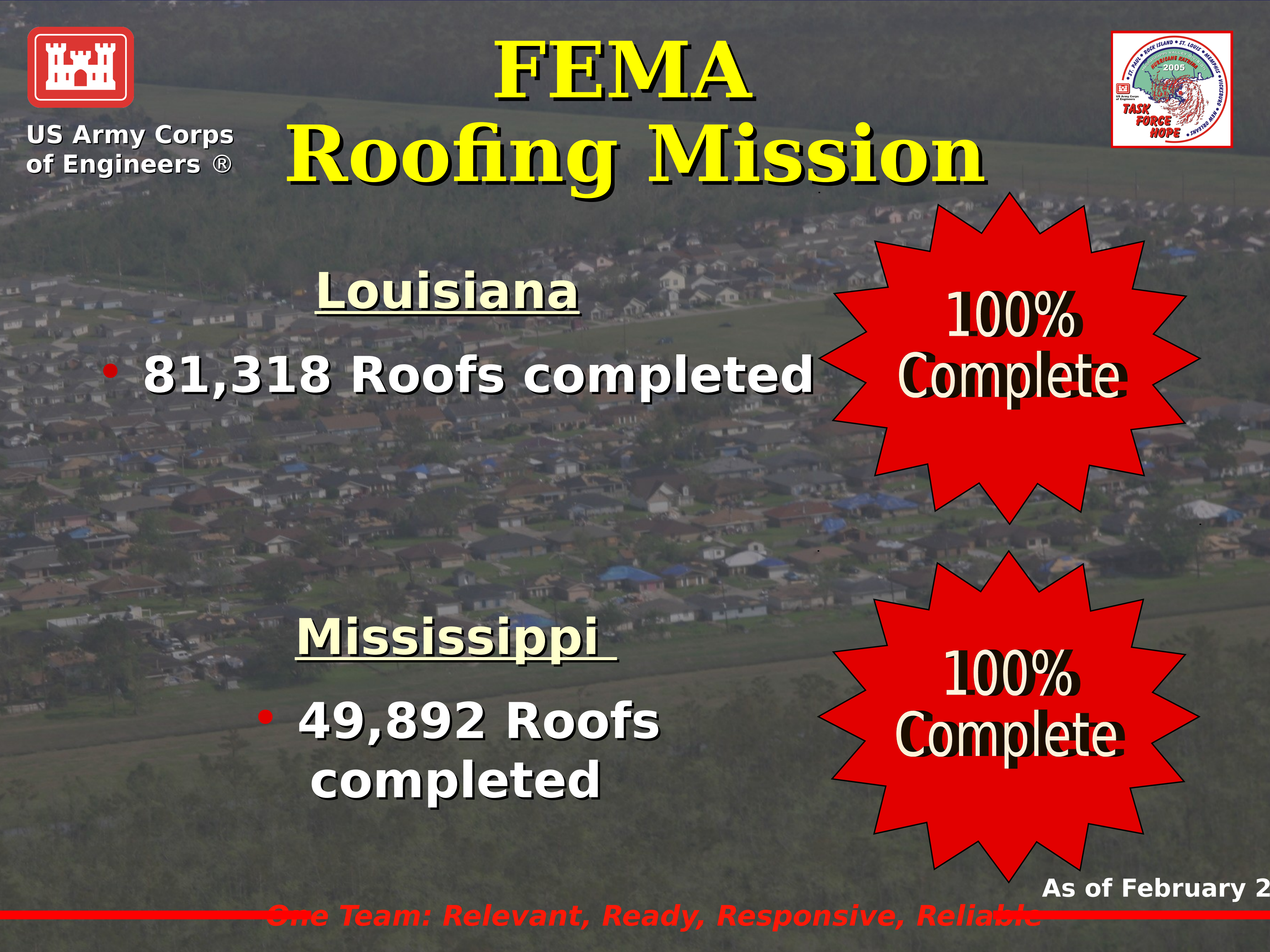
- Estimate 23.3 million cubic yards of debris to be removed
- 16 million cubic yards removed to date

40 million cubic yards of debris would fill 1.7 million large dump trucks….when lined up would stretch 18,000 miles.

As of February 2

One Team: Relevant, Ready, Responsive, Reliable

FEMA
Roofing Mission



Louisiana

- 81,318 Roofs completed

100%
Complete

Mississippi

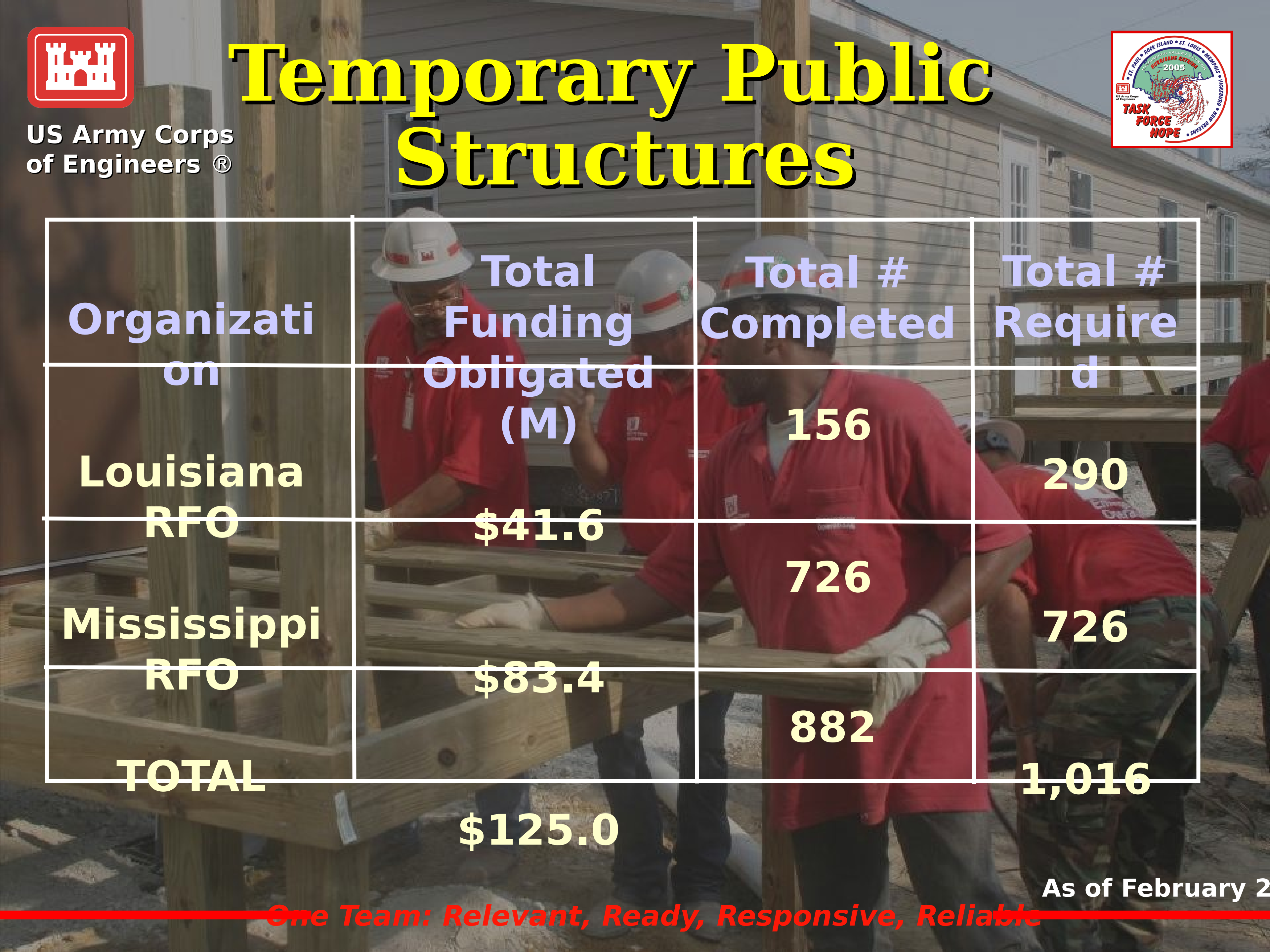
- 49,892 Roofs completed

100%
Complete

As of February 2

US Army Corps
of Engineers ®

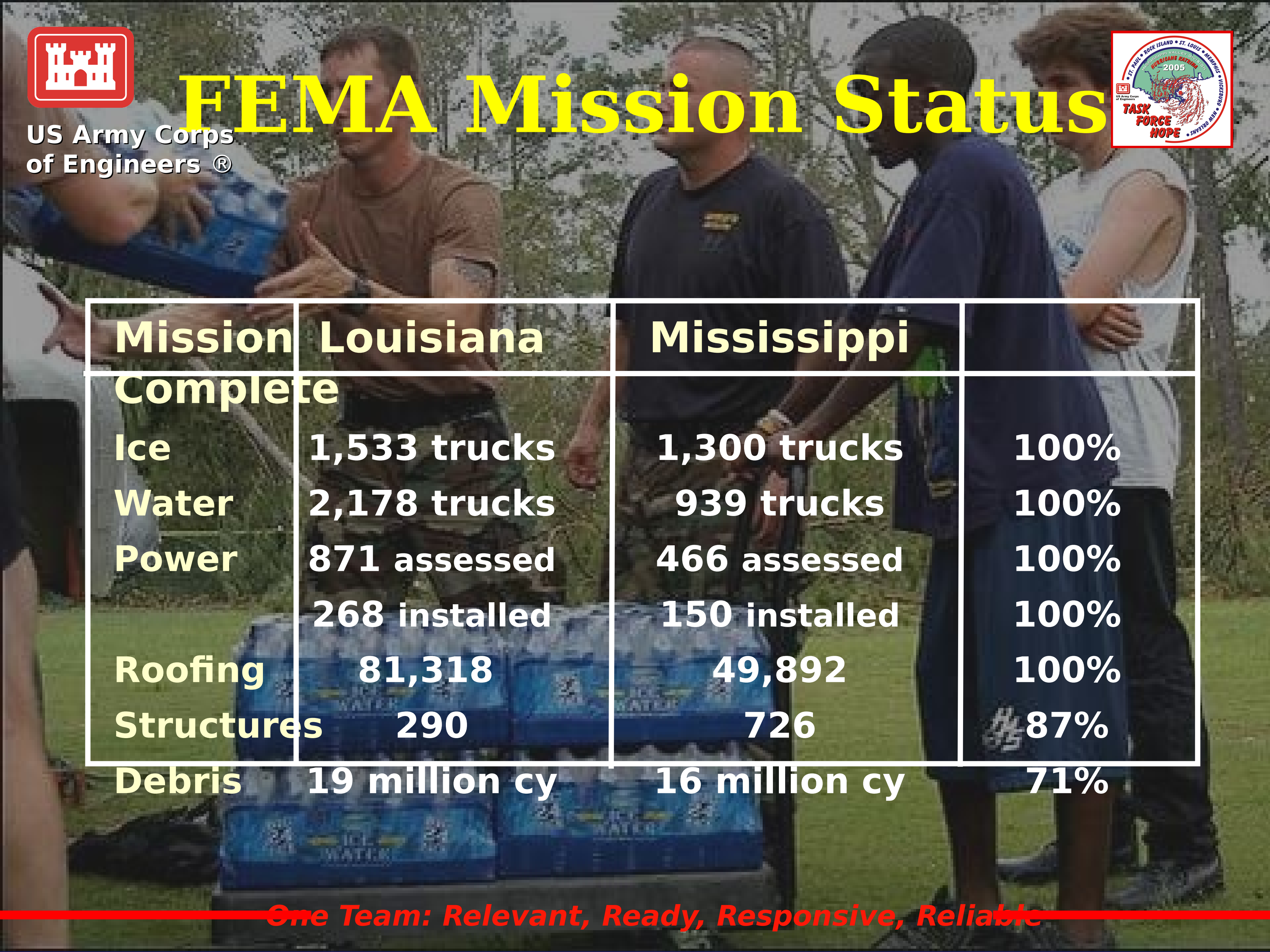
Temporary Public Structures



Organization	Total Funding Obligated (M)	Total # Completed	Total # Required
Louisiana RFO	$41.6	156	290
Mississippi RFO	$83.4	726	726
TOTAL	$125.0	882	1,016

As of February 2

FEMA Mission Status



Mission	Louisiana	Mississippi	Complete
Ice	1,533 trucks	1,300 trucks	100%
Water	2,178 trucks	939 trucks	100%
Power	871 assessed	466 assessed	100%
	268 installed	150 installed	100%
Roofing	81,318	49,892	100%
Structures	290	726	87%
Debris	19 million cy	16 million cy	71%

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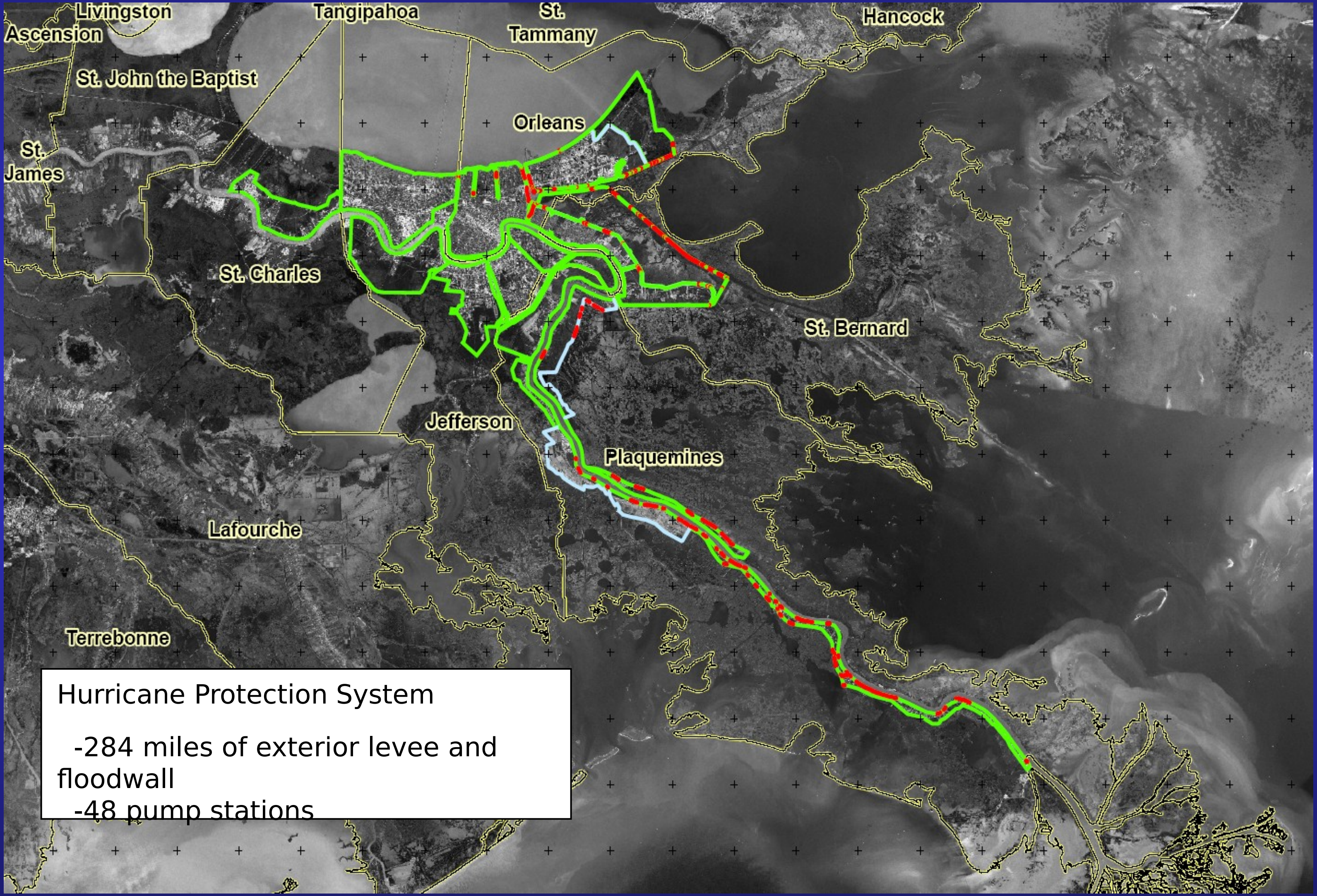
Affected Area


Livingston
Ascension
Tangipahoa
St. Tammany
Hancock
St. John the Baptist
Orleans
St. James
St. Charles
St. Bernard
Jefferson
Plaquemines
Lafourche
Terrebonne

Hurricane Protection System

-284 miles of exterior levee and floodwall

-48 pump stations

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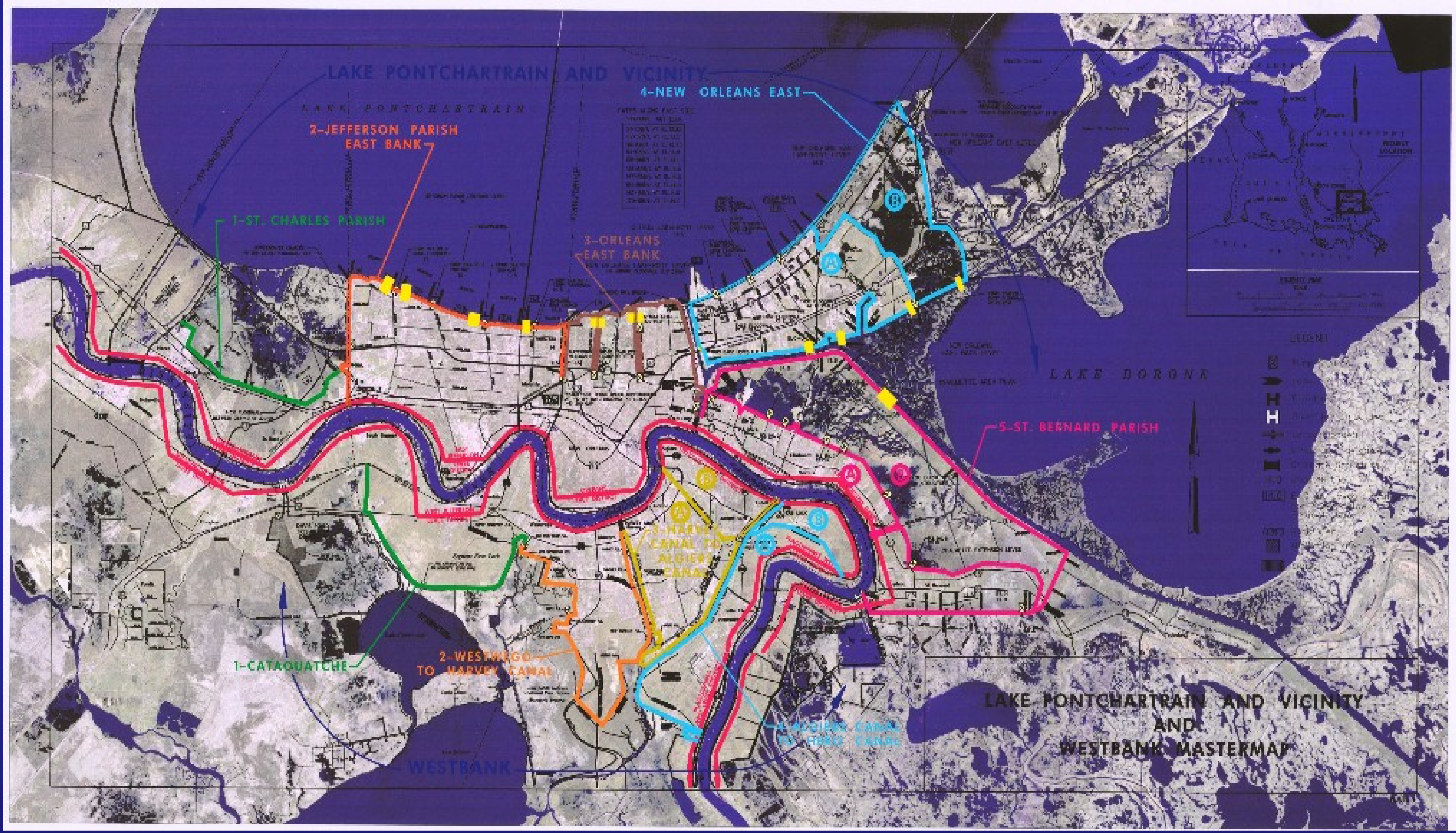
of Engineers ®

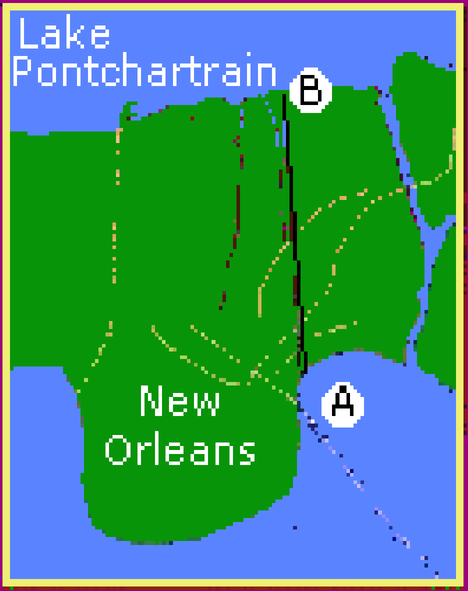
Affected Area

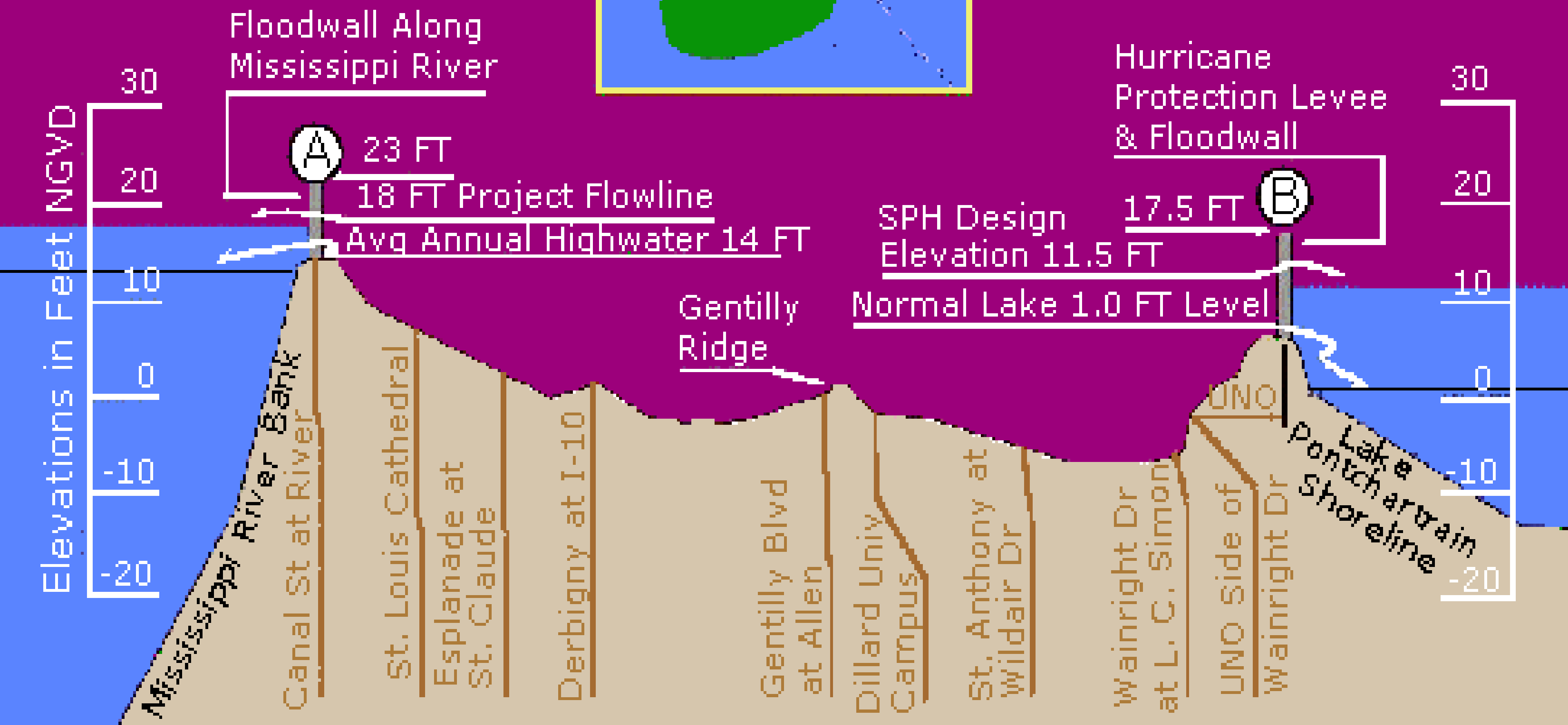

LAKE PONTCHARTRAIN AND VICINITY
LAKE PONTCHARTRAIN
4-NEW ORLEANS EAST
2-JEFFERSON PARISH EAST BANK
1-ST. CHARLES PARISH
3-ORLEANS EAST BANK
LAKE BORGNE
LEGEND
5-ST. BERNARD PARISH
3-HARVEY CANAL TO ALGIERS CANAL
2-WESTWEGO TO HARVEY CANAL
1-CATAOUATCHE
4-ALGIERS CANAL TO HERO CANAL
WESTBANK
LAKE PONTCHARTRAIN AND VICINITY AND WESTBANK MASTERMAP

City of New Orleans Ground Elevations

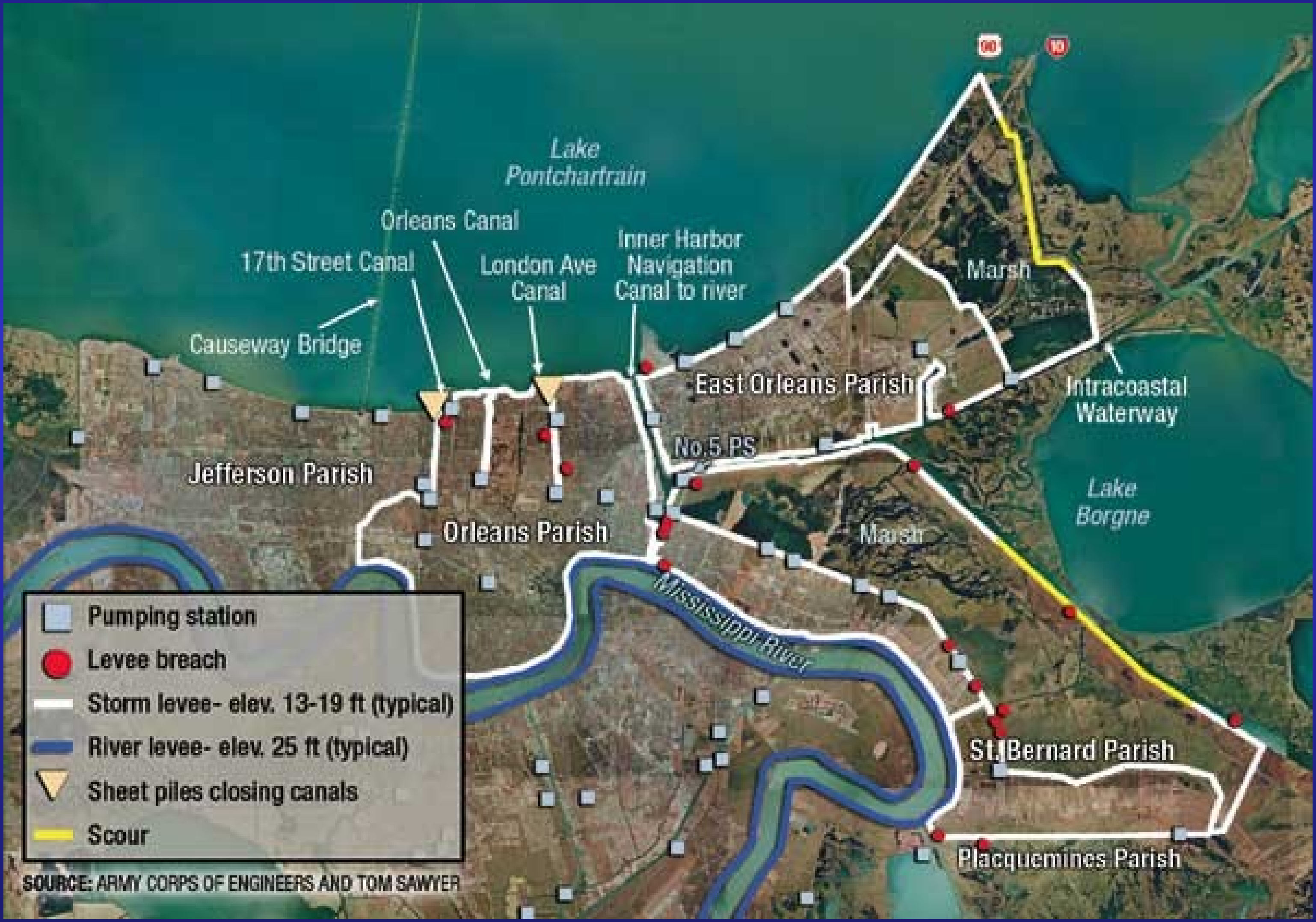
From Canal St. at Mississippi River to the Lakefront at U.N.O.

Area Map


Lake Pontchartrain
B
A
New Orleans

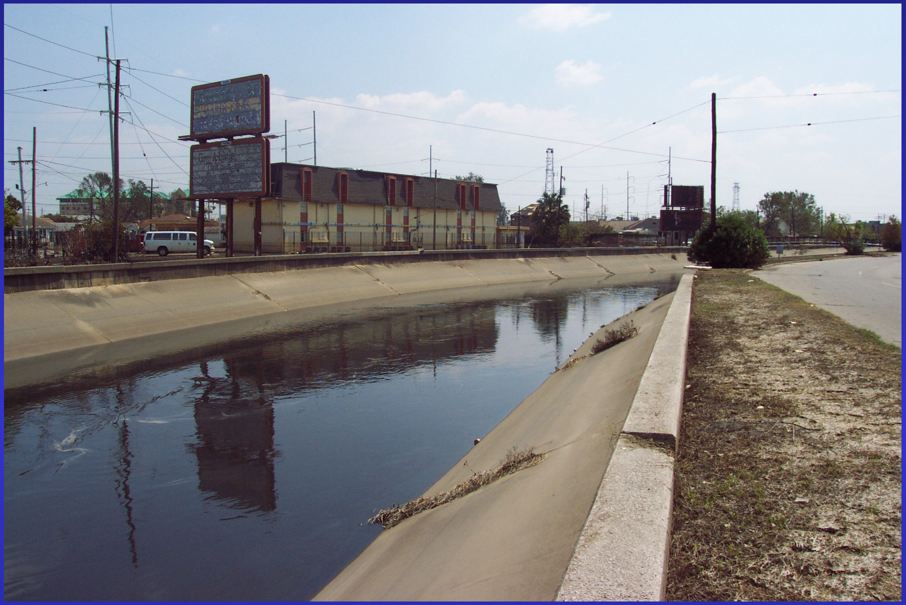

Floodwall Along Mississippi River
Hurricane Protection Levee & Floodwall
Elevations in Feet NGVD
30
20
10
0
-10
-20
A
23 FT
18 FT Project Flowline
Avg Annual Highwater 14 FT
B
17.5 FT
SPH Design Elevation 11.5 FT
Normal Lake 1.0 FT Level
Gentilly Ridge
UNO
Mississippi River Bank
Canal St at River
St. Louis Cathedral
Esplanade at St. Claude
Derbigny at I-10
Gentilly Blvd at Allen
Dillard Univ Campus
St. Anthony at Wildair Dr
Wainright Dr at L. C. Simon
UNO Side of Wainright Dr
Lake Pontchartrain Shoreline

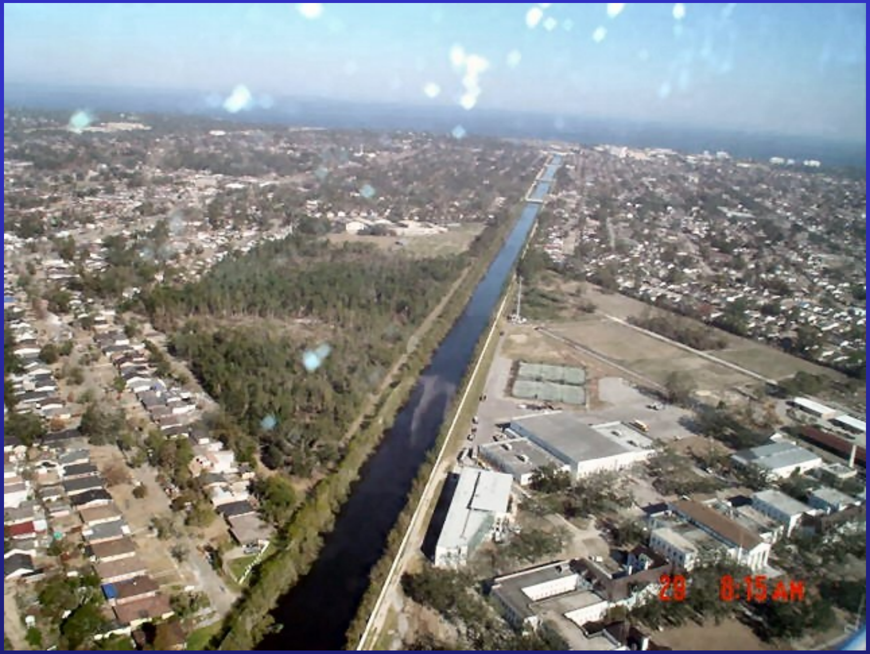
Metropolitan New Orleans


90
10
Lake Pontchartrain
Orleans Canal
17th Street Canal
London Ave Canal
Inner Harbor Navigation Canal to river
Causeway Bridge
Marsh
East Orleans Parish
Intracoastal Waterway
No.5 PS
Jefferson Parish
Orleans Parish
Lake Borgne
Marsh
Mississippi River
St. Bernard Parish
Placquemines Parish
Pumping station
Levee breach
Storm levee- elev. 13-19 ft (typical)
River levee- elev. 25 ft (typical)
Sheet piles closing canals
Scour

SOURCE: ARMY CORPS OF ENGINEERS AND TOM SAWYER

Drainage Canals





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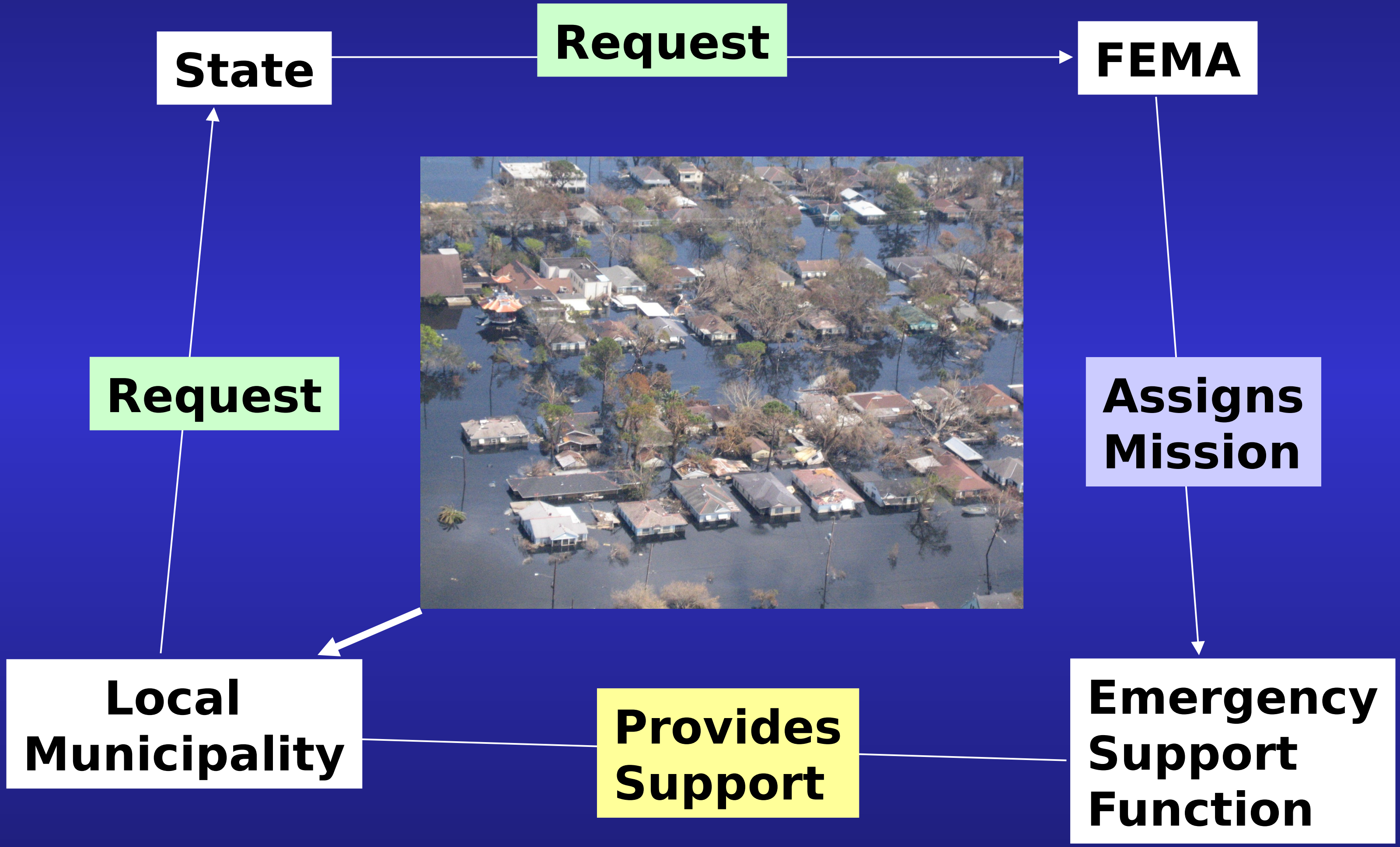
Pumping Stations

National Response Plan



State

Request

FEMA

Assigns Mission

Emergency Support Function

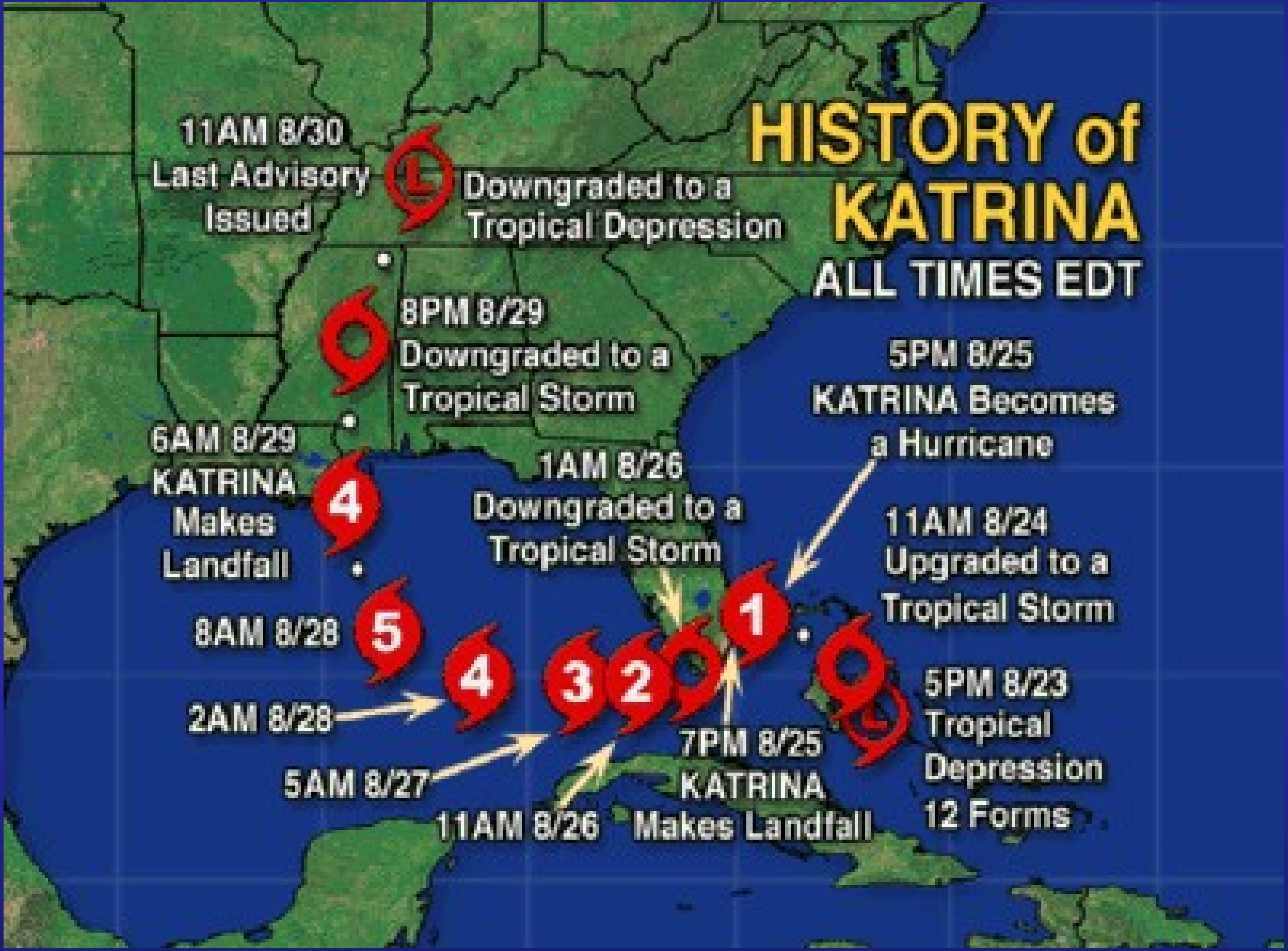
Provides Support

Local Municipality

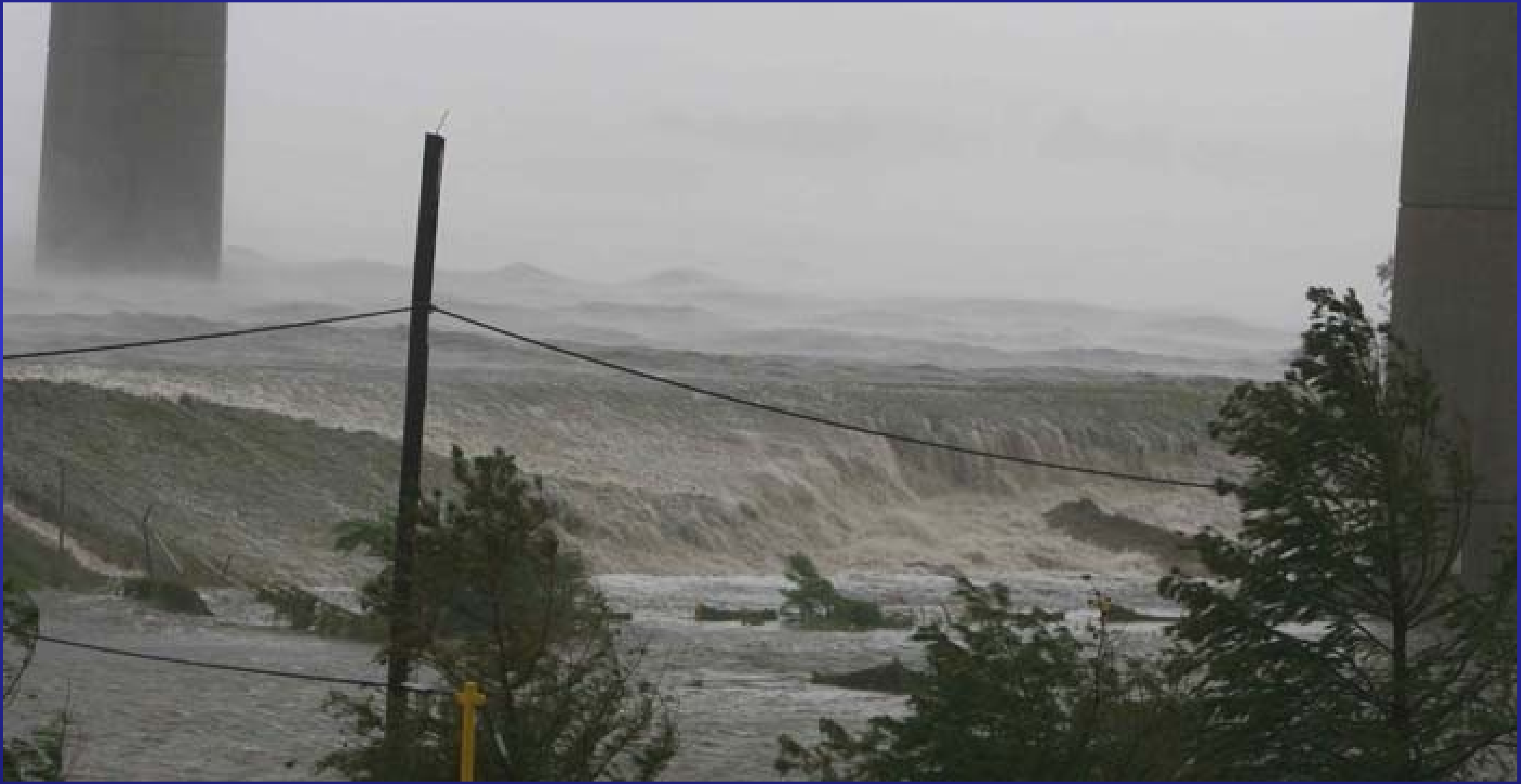
Request

US Army Corps
of Engineers ®

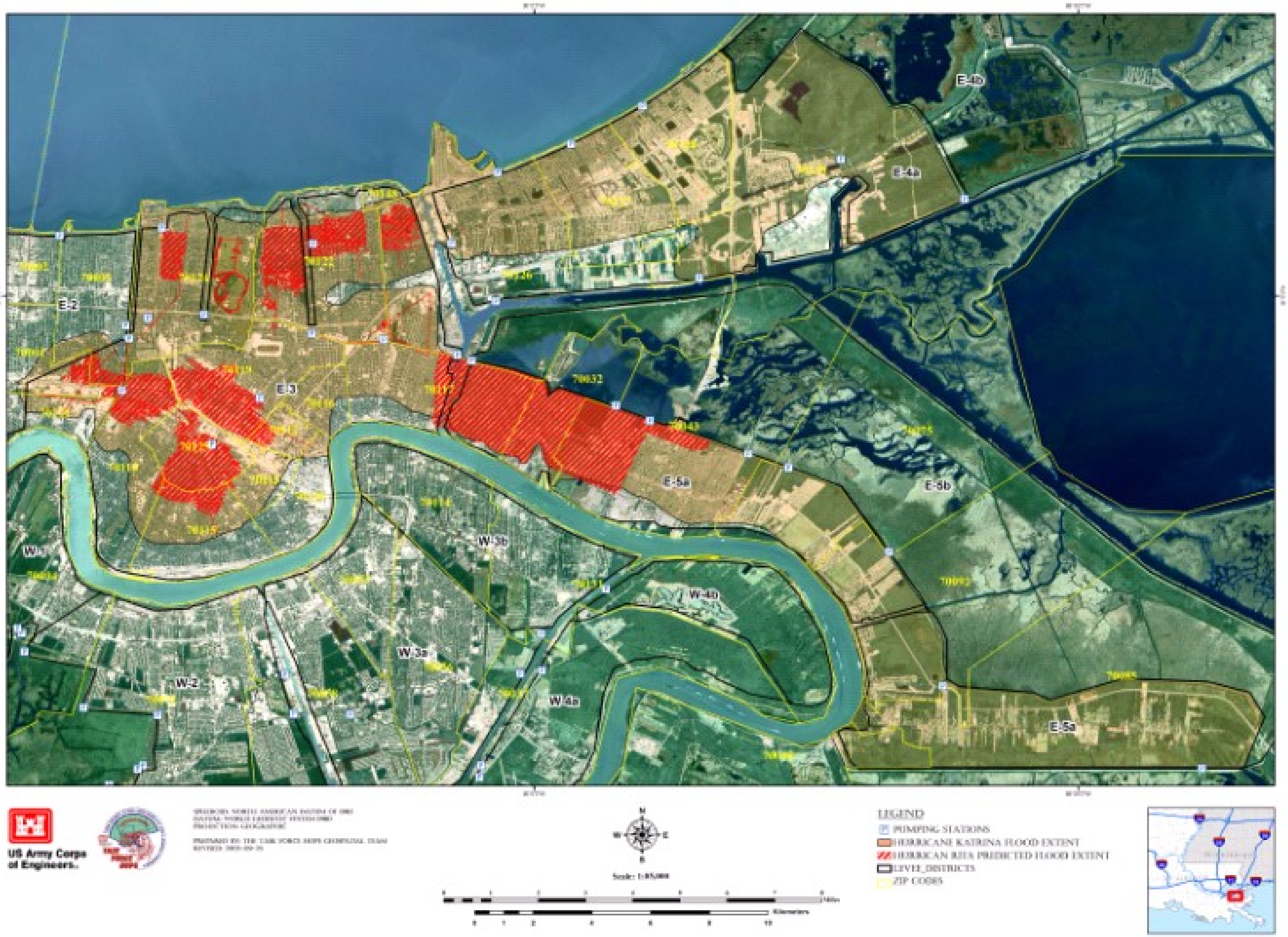
Hurricane Katrina


HISTORY of KATRINA
ALL TIMES EDT
11AM 8/30 Last Advisory Issued
L
Downgraded to a Tropical Depression
8PM 8/29 Downgraded to a Tropical Storm
6AM 8/29 KATRINA Makes Landfall
4
8AM 8/28
5
2AM 8/28
4
5AM 8/27
3
11AM 8/26
2
1AM 8/26 Downgraded to a Tropical Storm
7PM 8/25 KATRINA Makes Landfall
1
5PM 8/25 KATRINA Becomes a Hurricane
11AM 8/24 Upgraded to a Tropical Storm
5PM 8/23 Tropical Depression 12 Forms

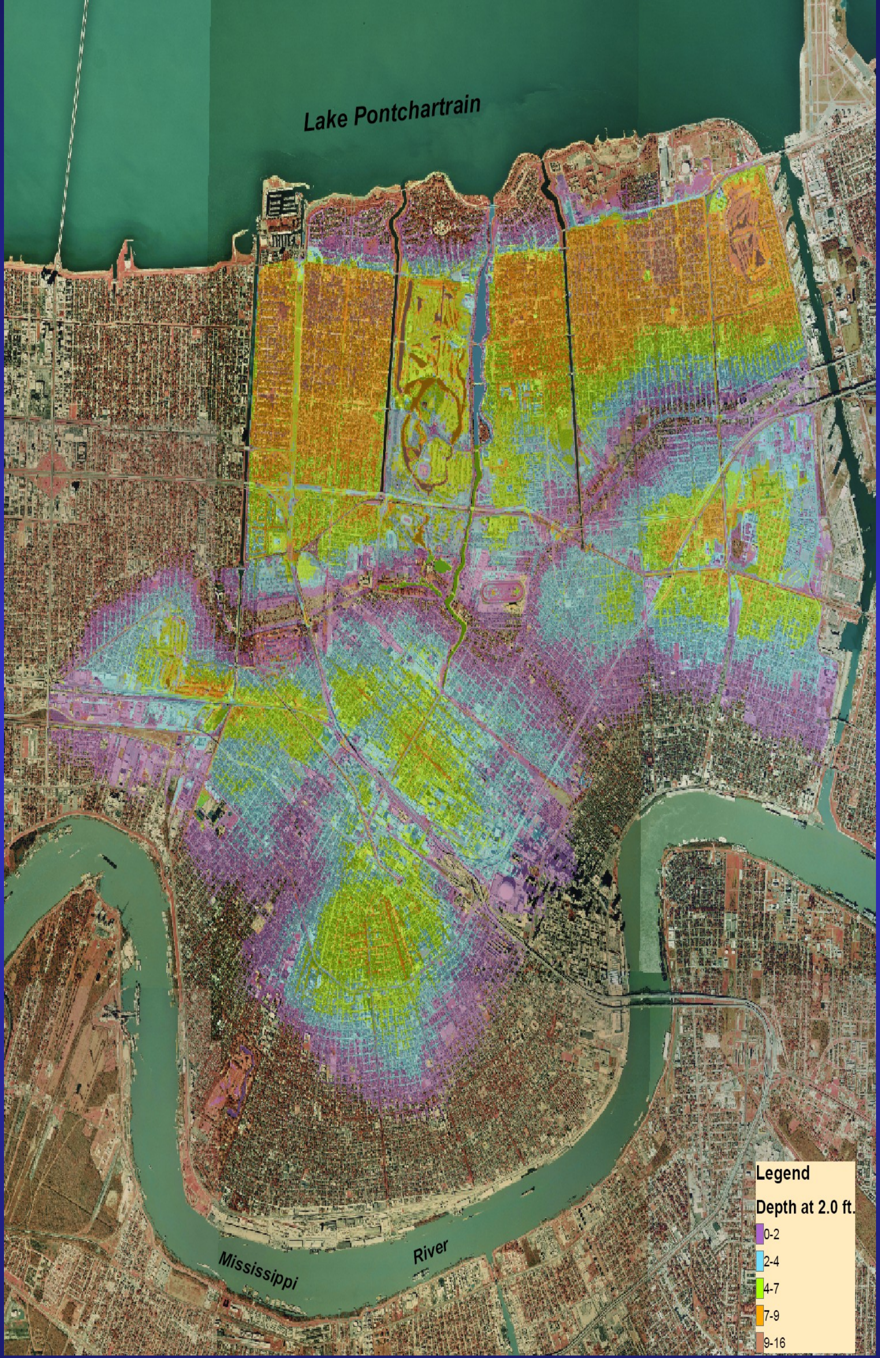
Storm Surge



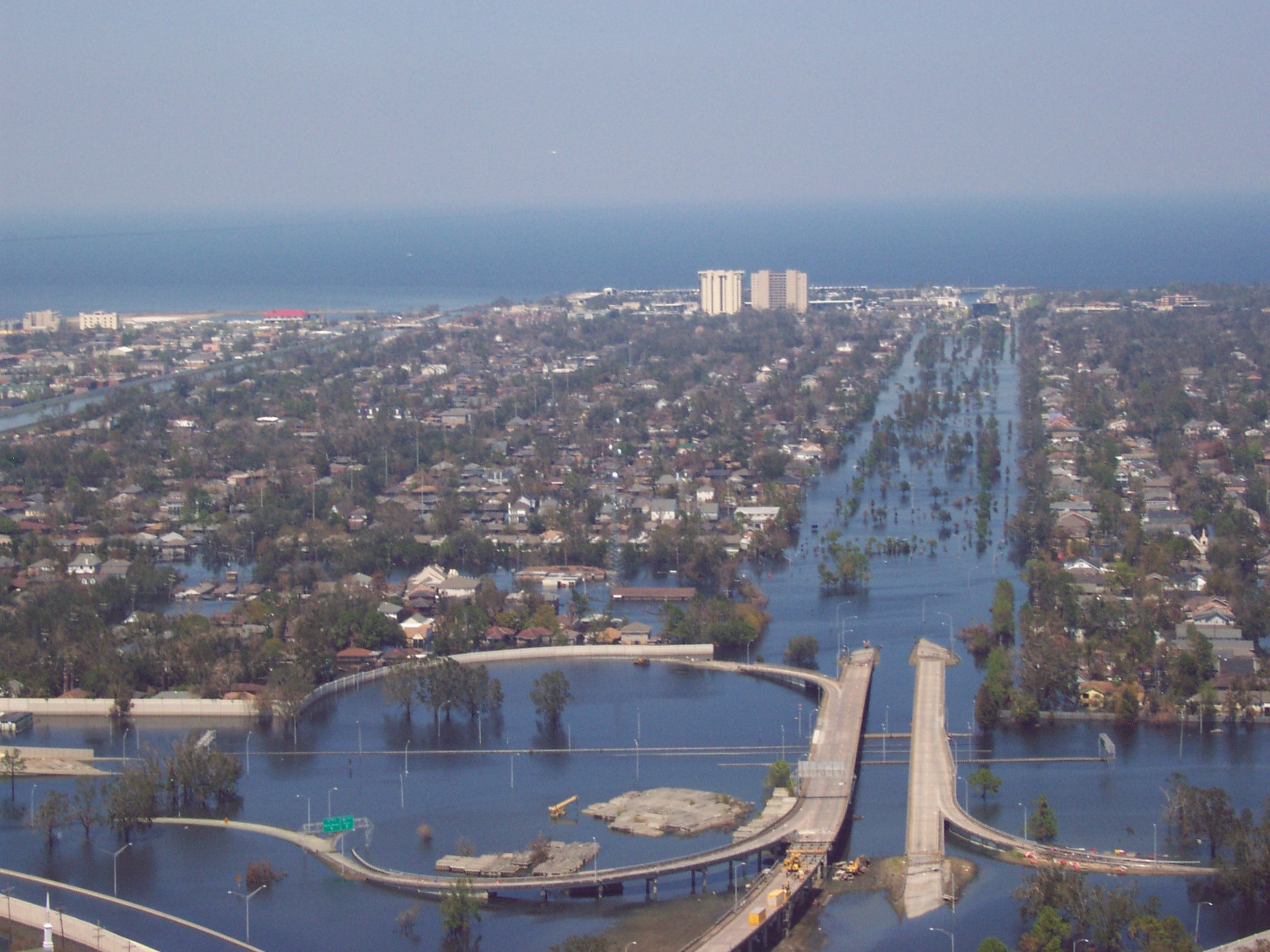
New Orleans Flooding

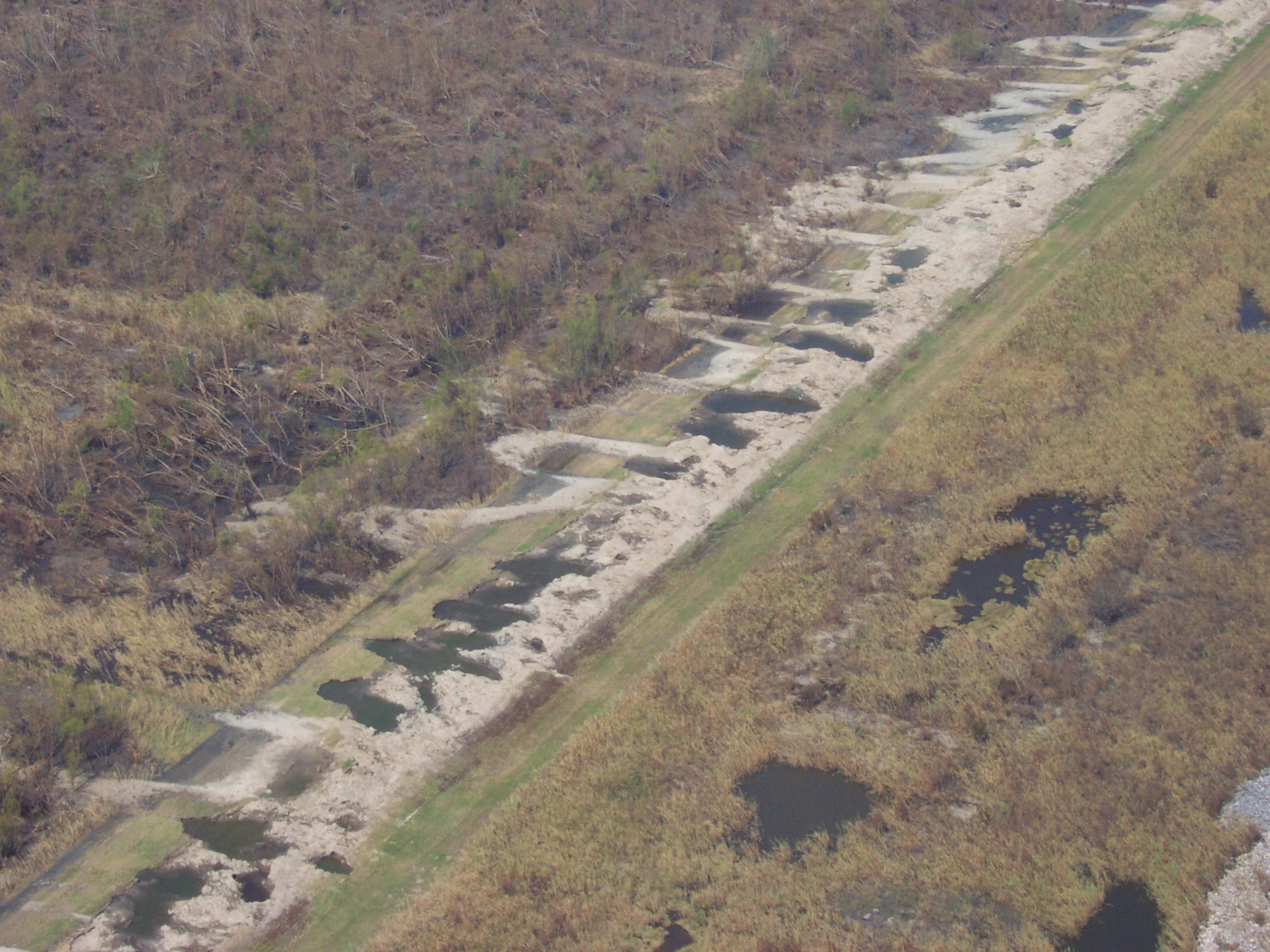

E-4b
E-4a
E-2
E-3
70032
70117
70043
E-5b
E-5a
W-1
W-3b
W-4b
W-3a
W-2
W-4a
70092
E-5a
US Army Corps of Engineers
PREPARED BY: THE TASK FORCE HOPE GEOSPATIAL TEAM
N
W
E
S
Scale: 1:85,000
Miles
Kilometers
0
1
2
4
6
8
10
LEGEND
PUMPING STATIONS
HURRICANE KATRINA FLOOD EXTENT
HURRICAN RITA PREDICTED FLOOD EXTENT
LEVEE_DISTRICTS
ZIP CODES

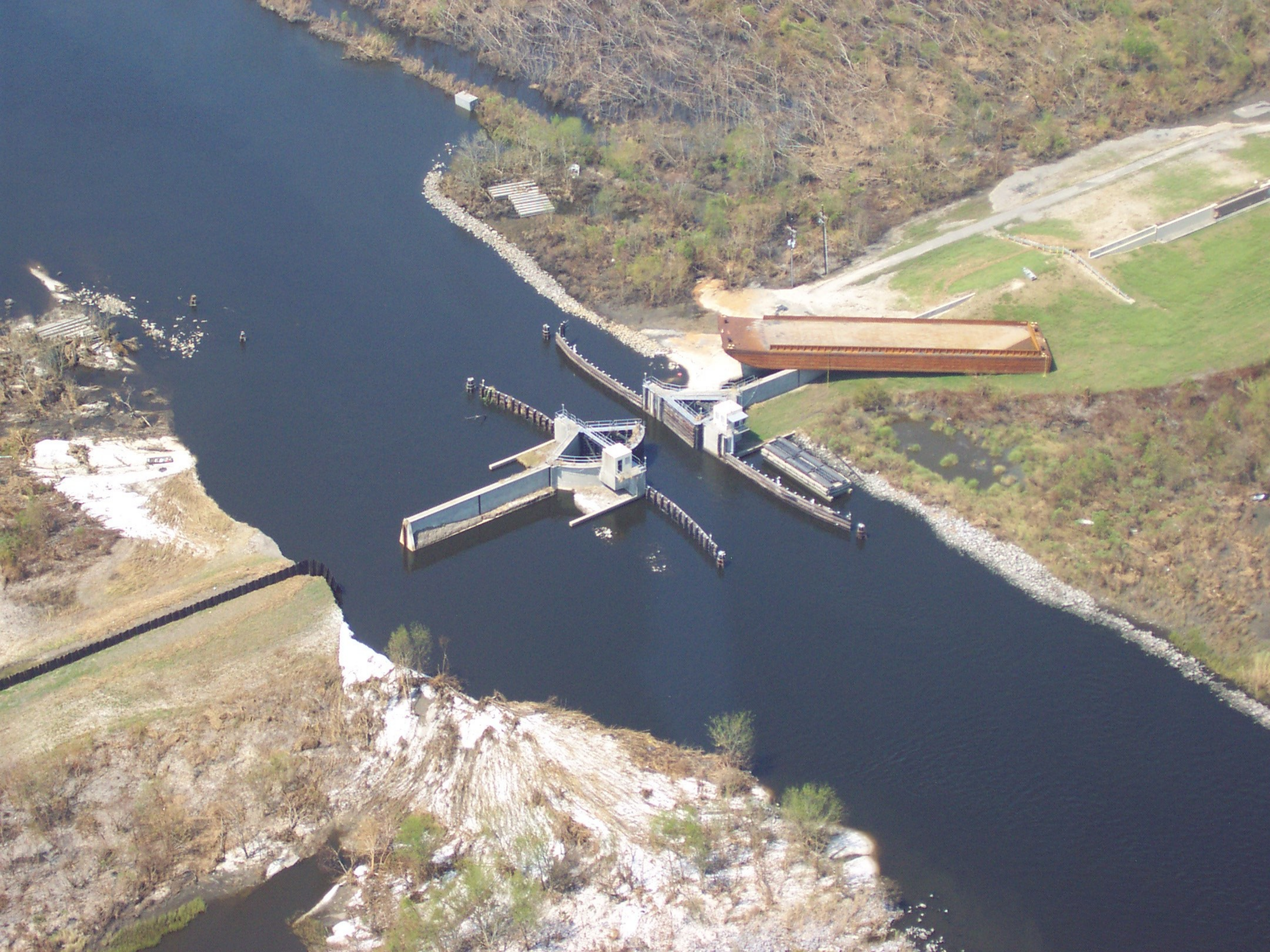
US Army Corps of Engineers ®

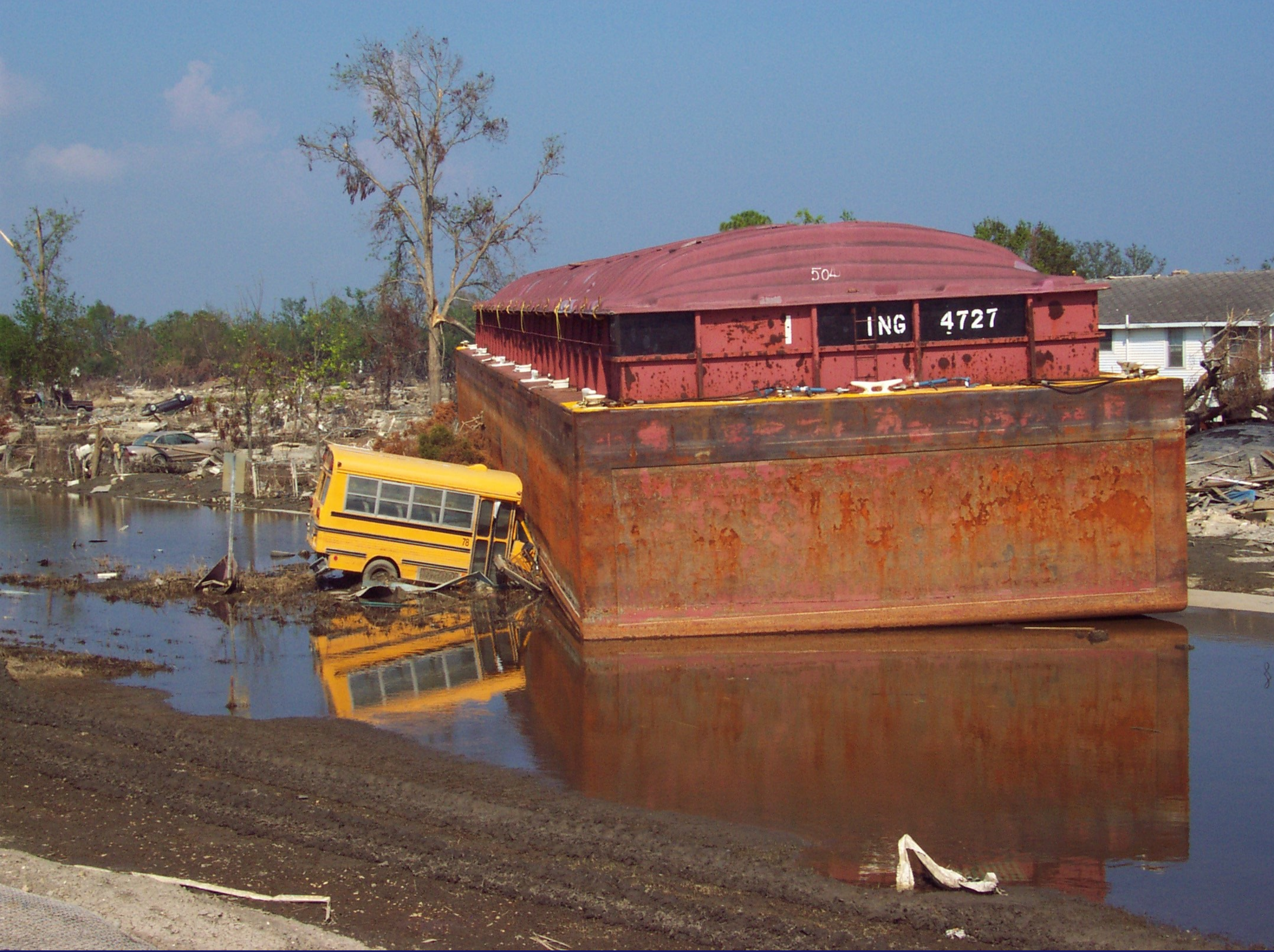

Lake Pontchartrain
Mississippi
River
Legend
Depth at 2.0 ft.
0-2
2-4
4-7
7-9
9-16

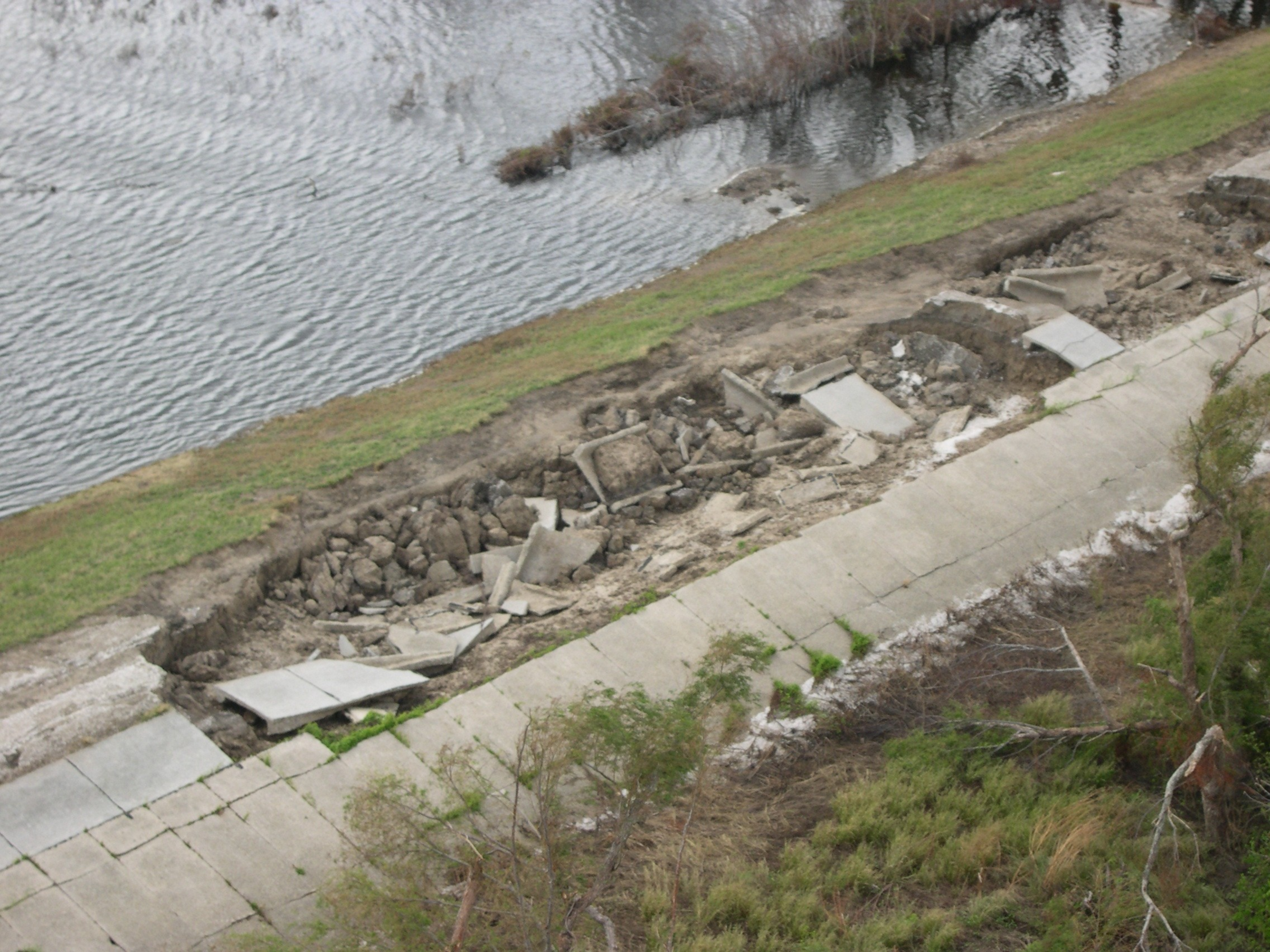
In the Aftermath








504
ING 4727
78



Task Force Unwatering

US Army Corps
of Engineers ®

17TH ST
Status
Sandbags to 10'
? close canal
New Orleans East
UPDATED REPORTS
0700 UPDATE
PUMP REPORT
Emergency Operations
US Army Corps of Engineers
Poland Spring

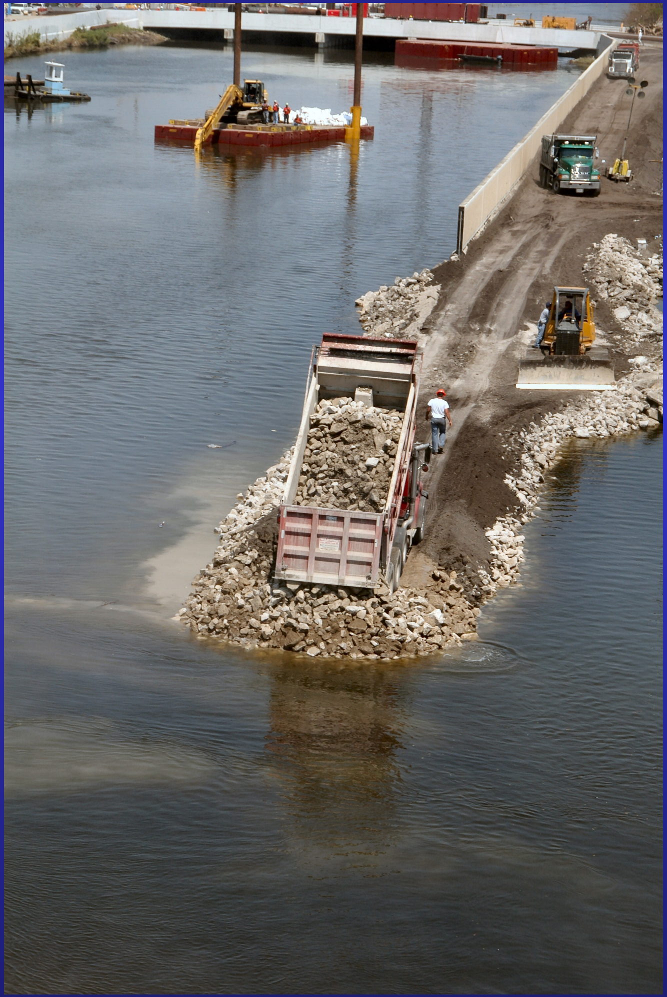
US Army Corps
of Engineers ®

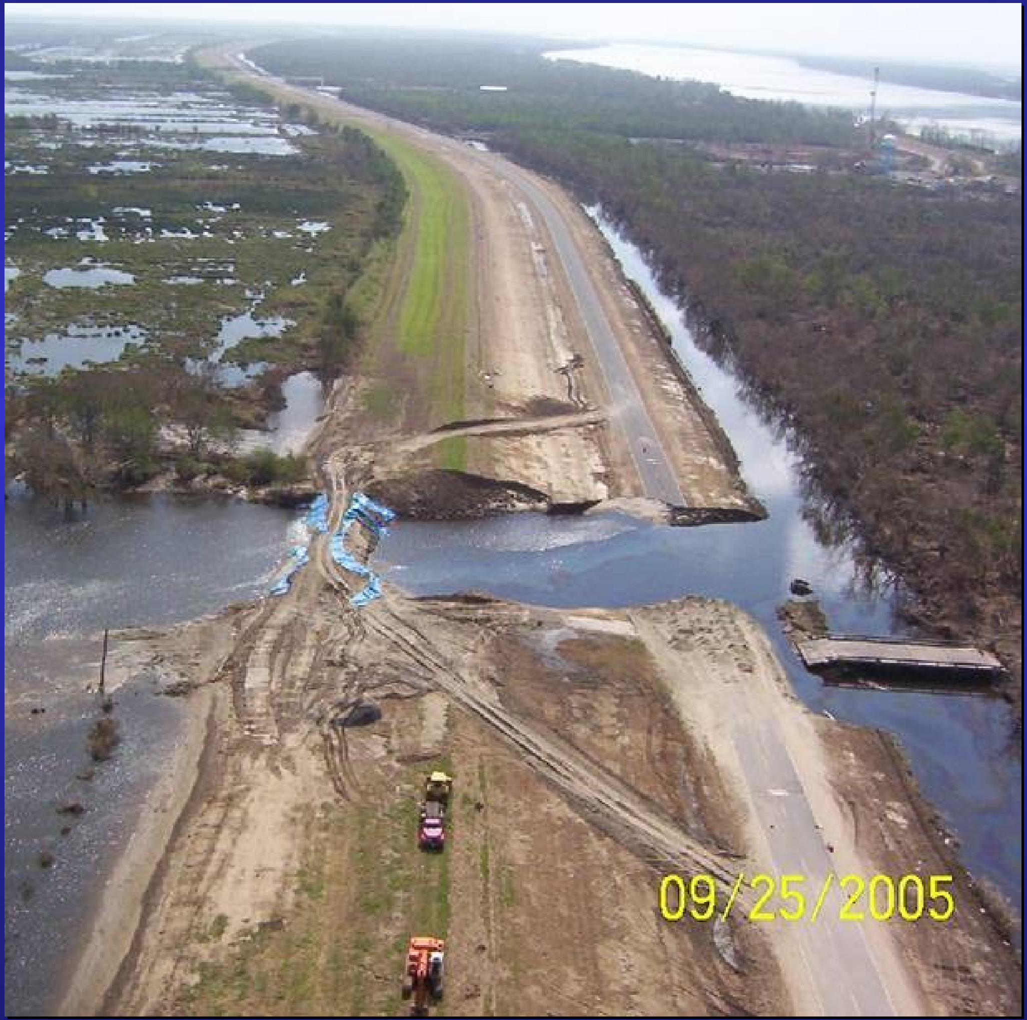
Basic Strategy

Basic Strategy

US Army Corps of Engineers
Emergency
Operations

Basic Strategy





US Army Corps
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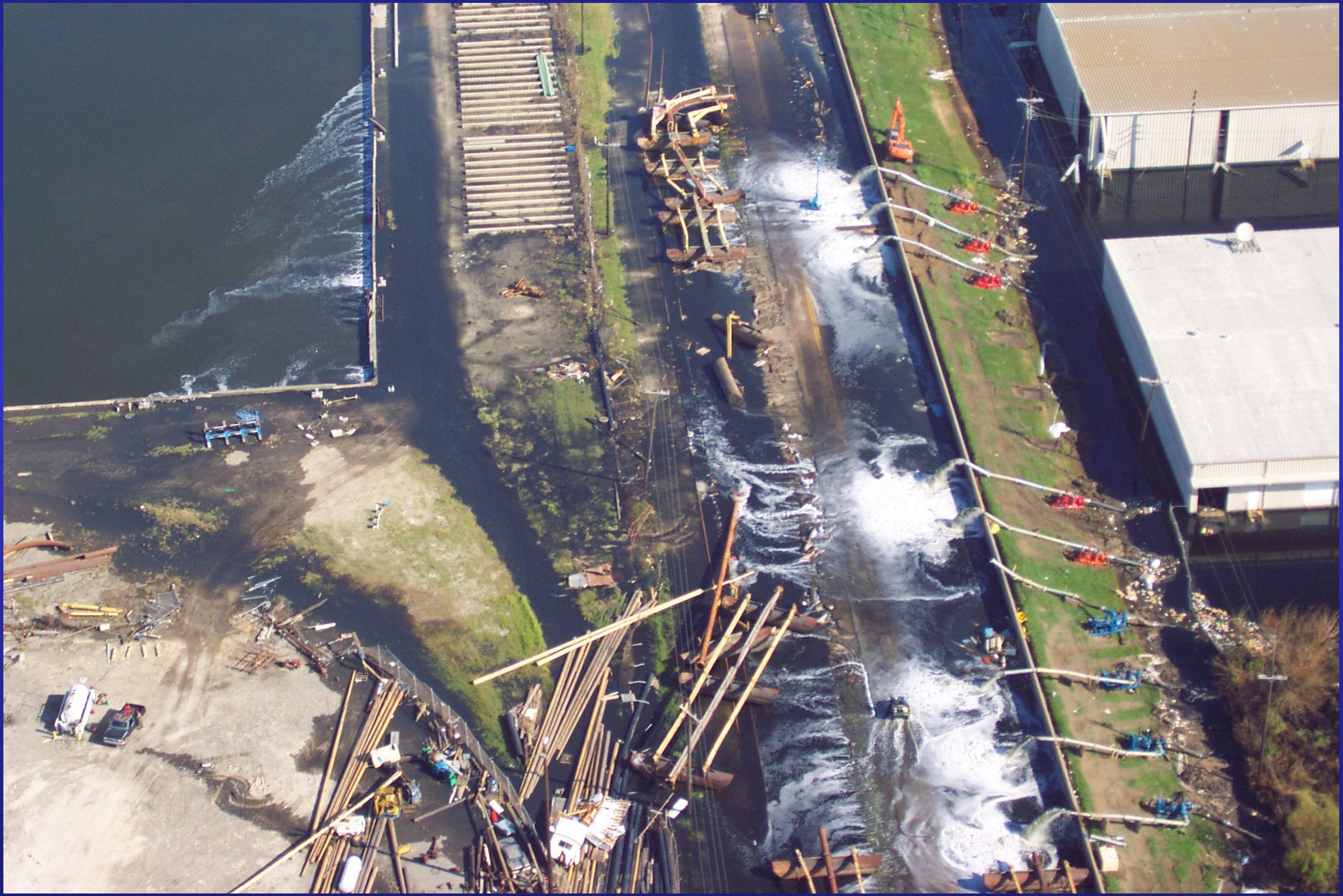
Basic Strategy

Basic Strategy



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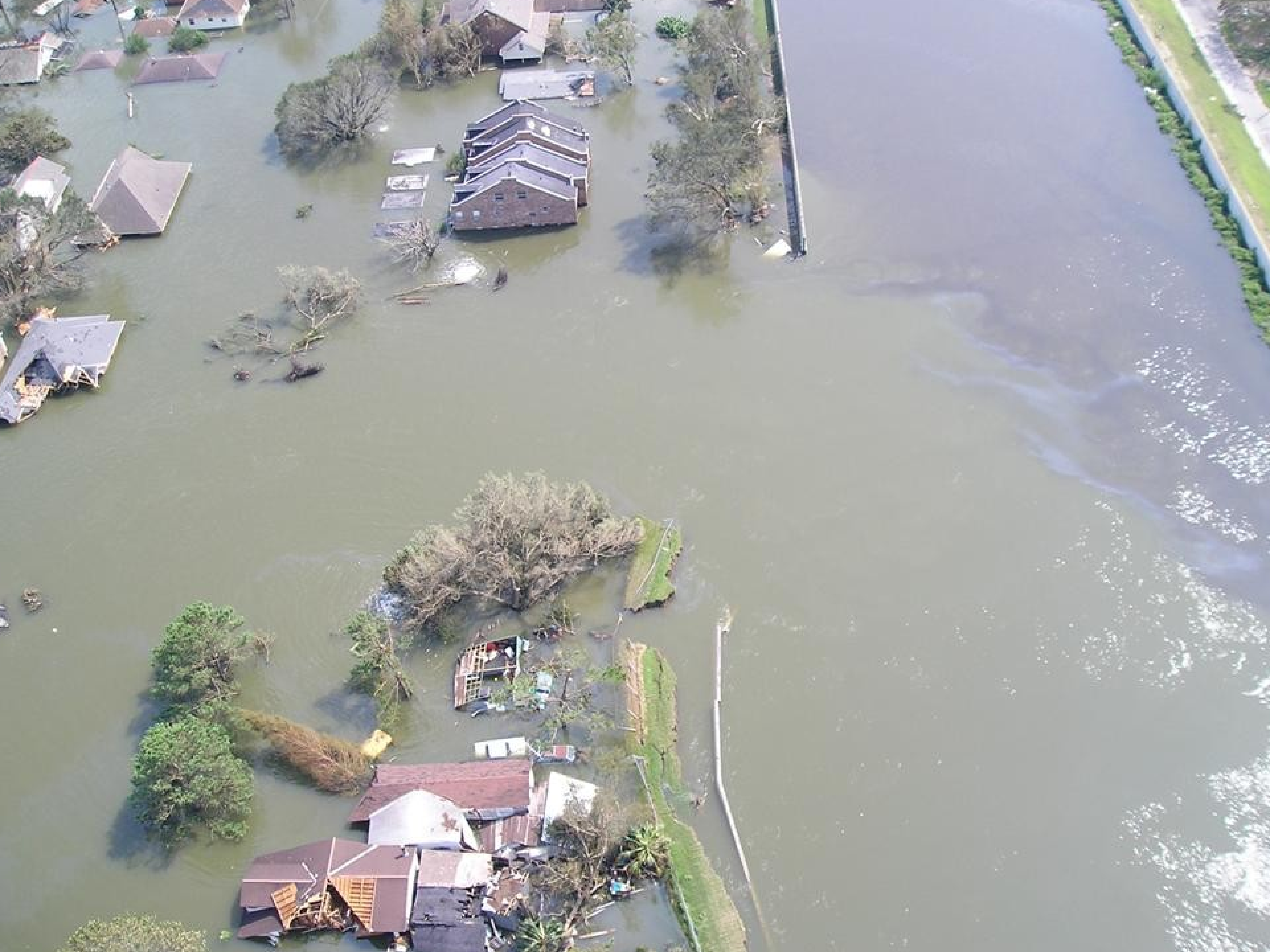
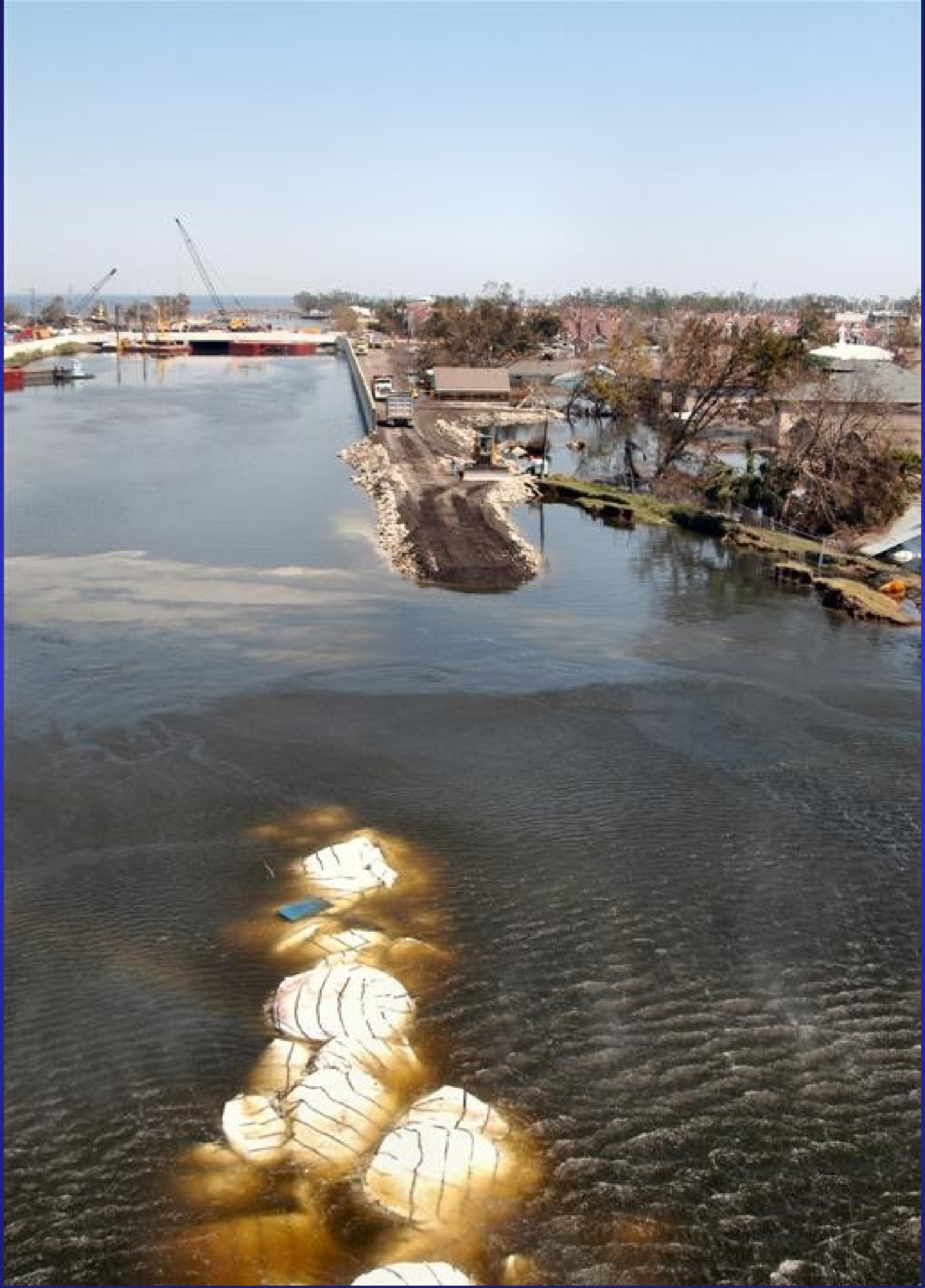
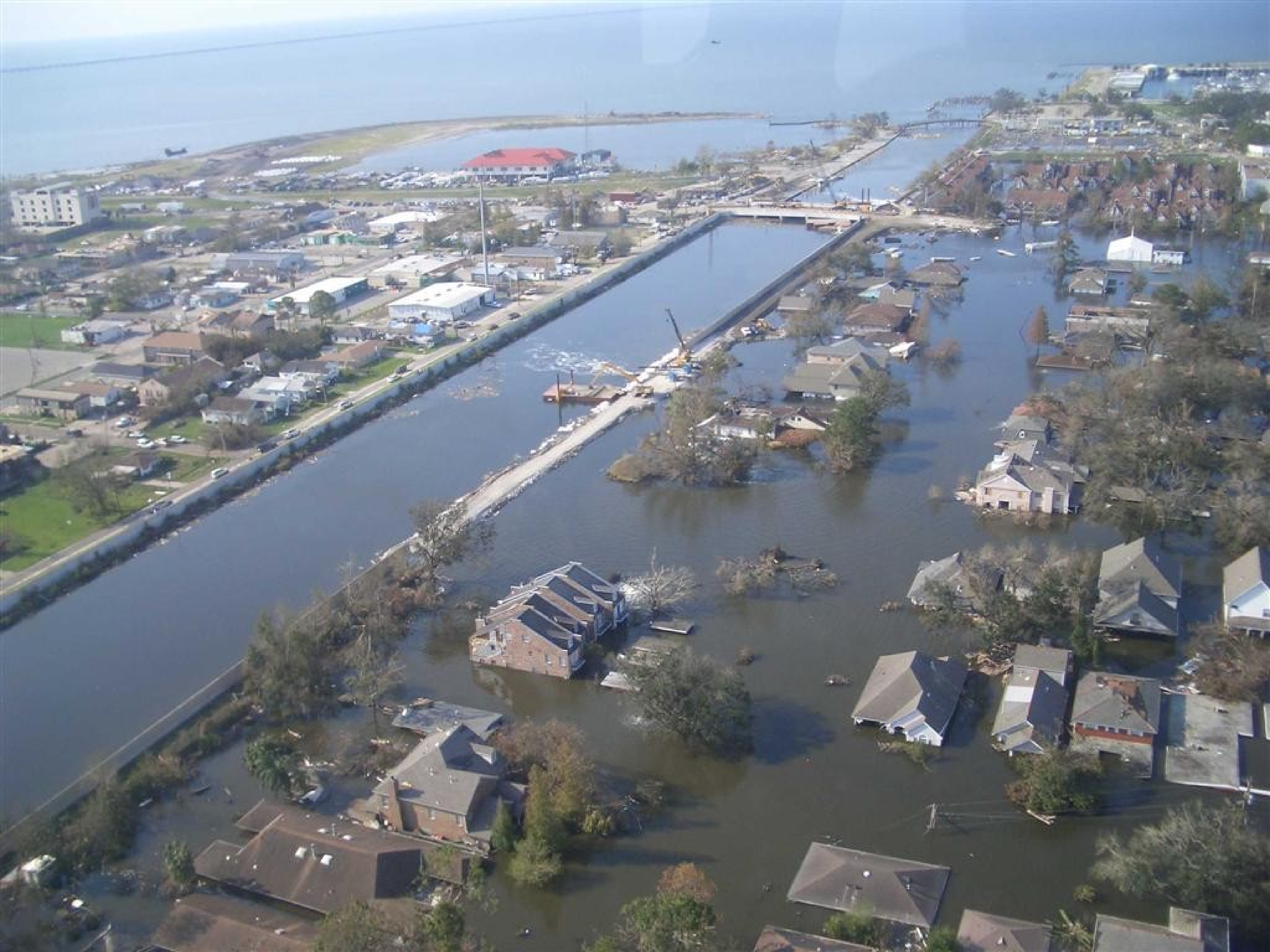
Basic Strategy

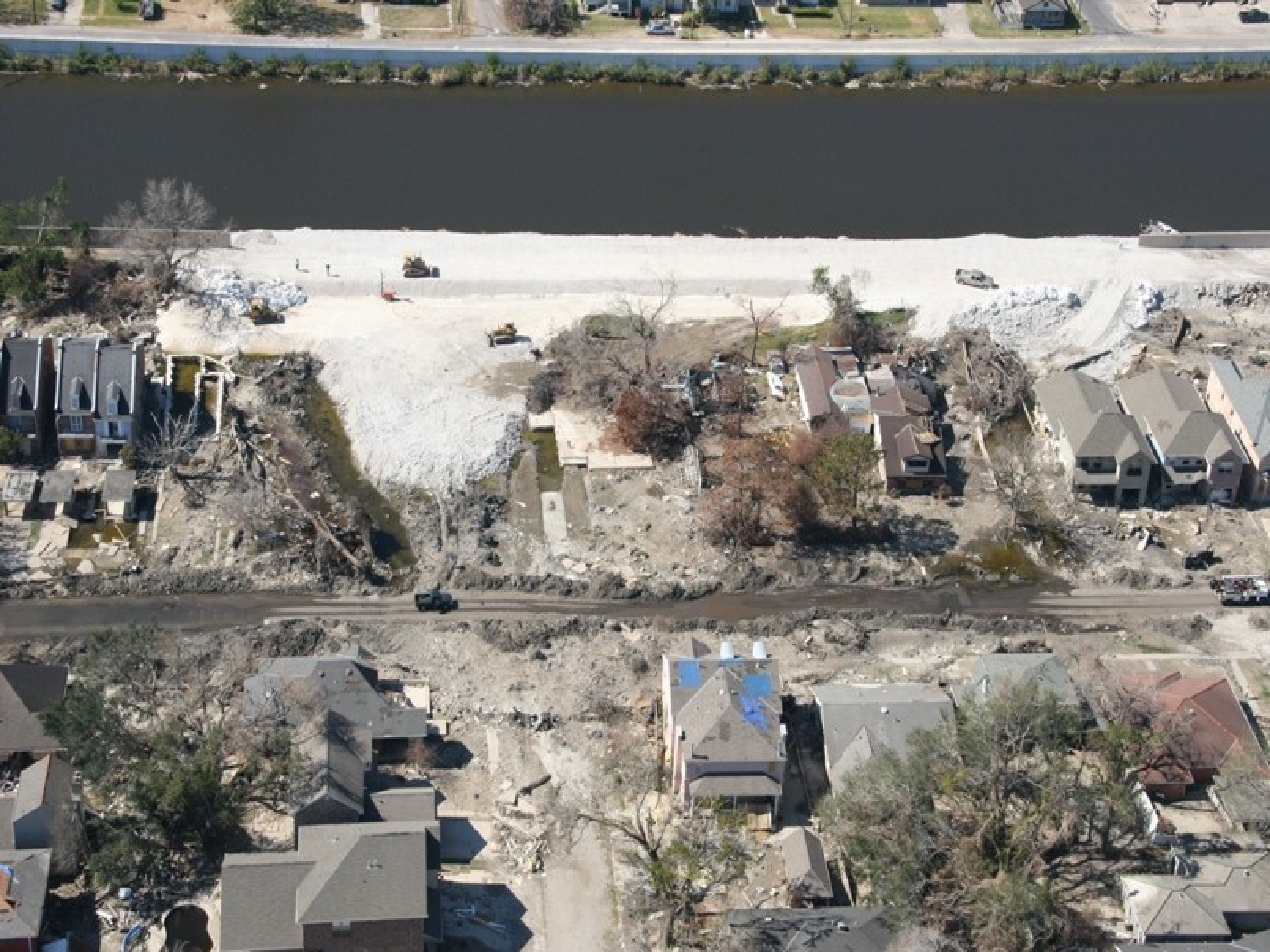
Basic Strategy

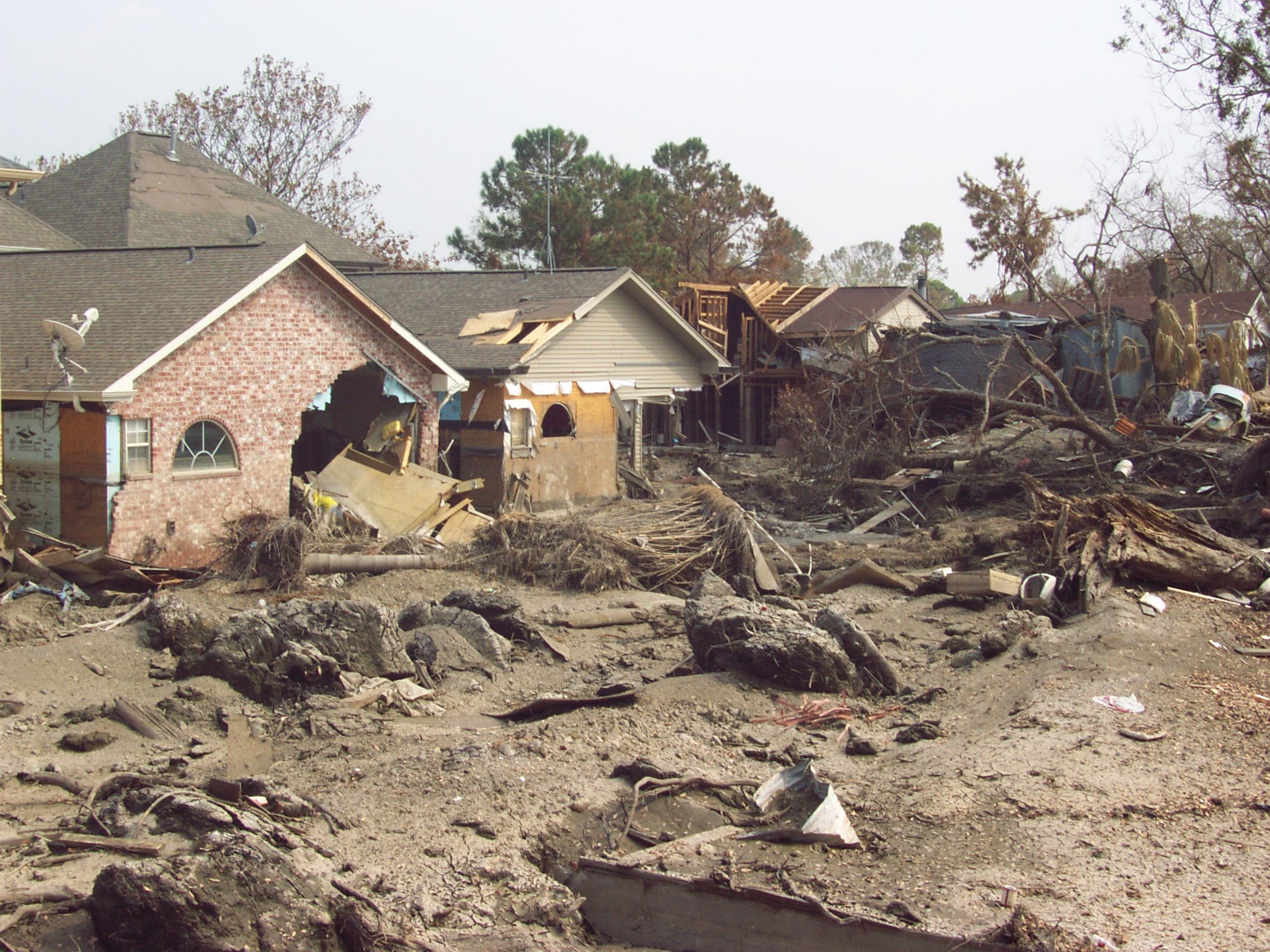
RESULTS

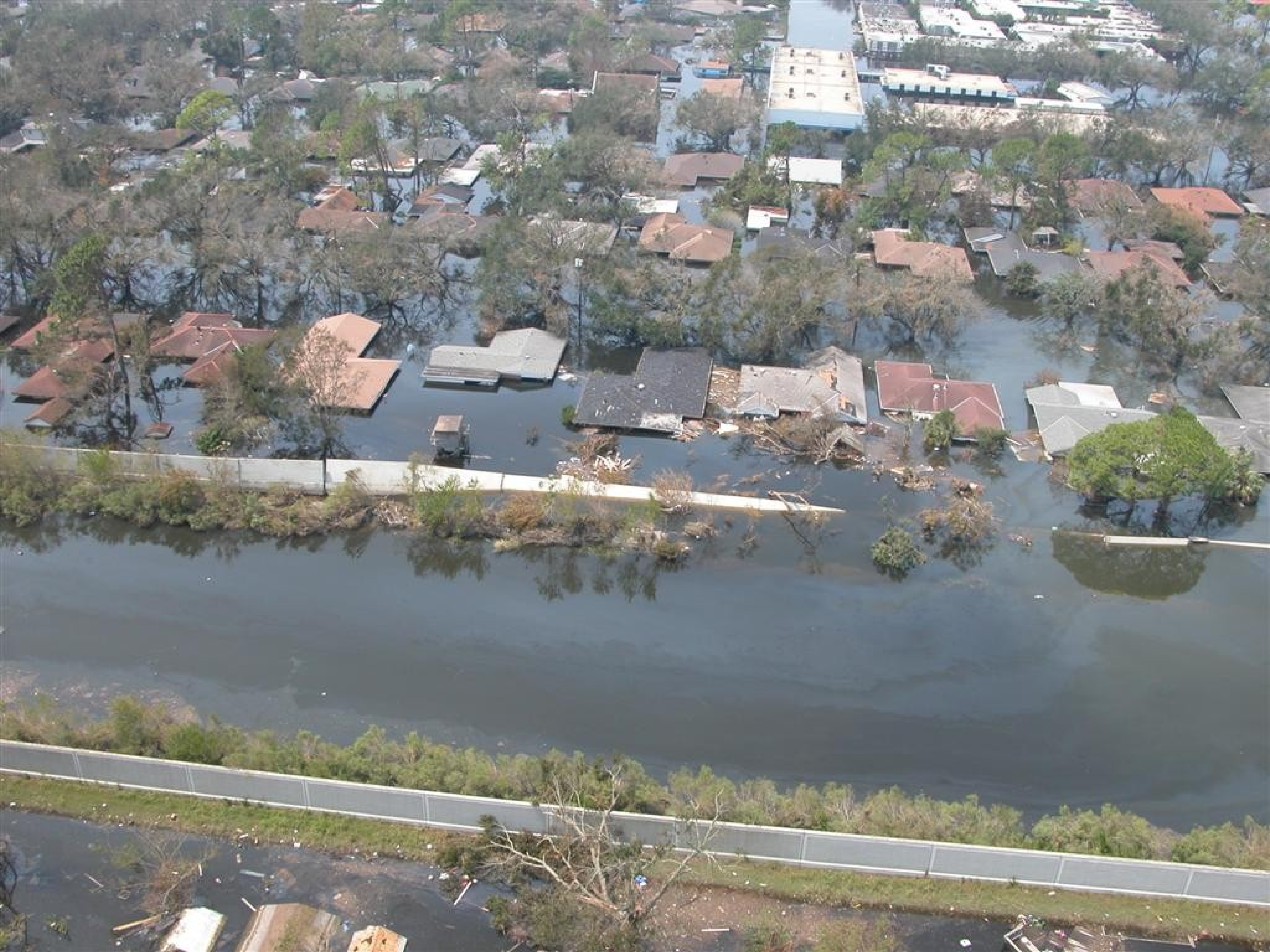


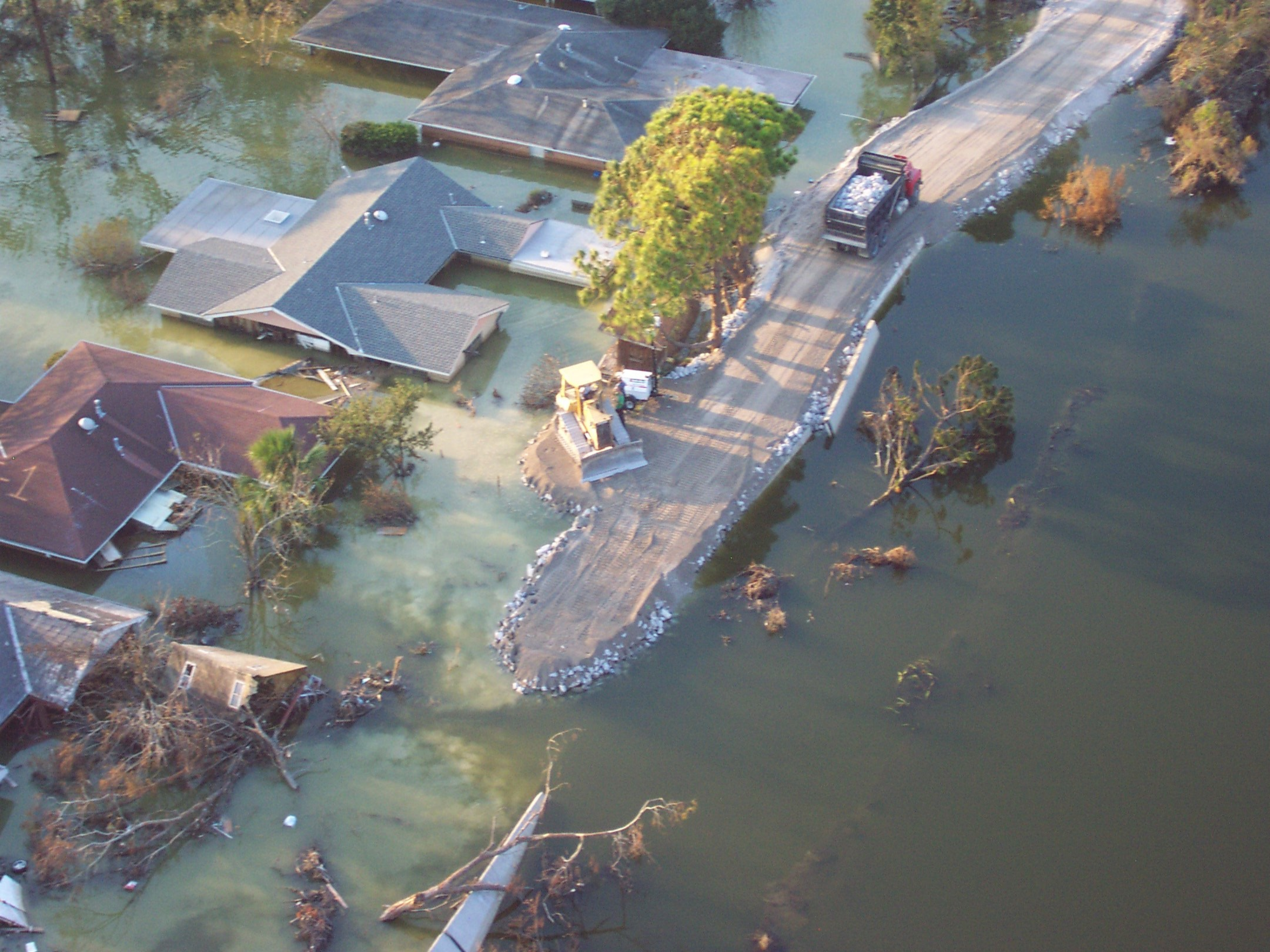


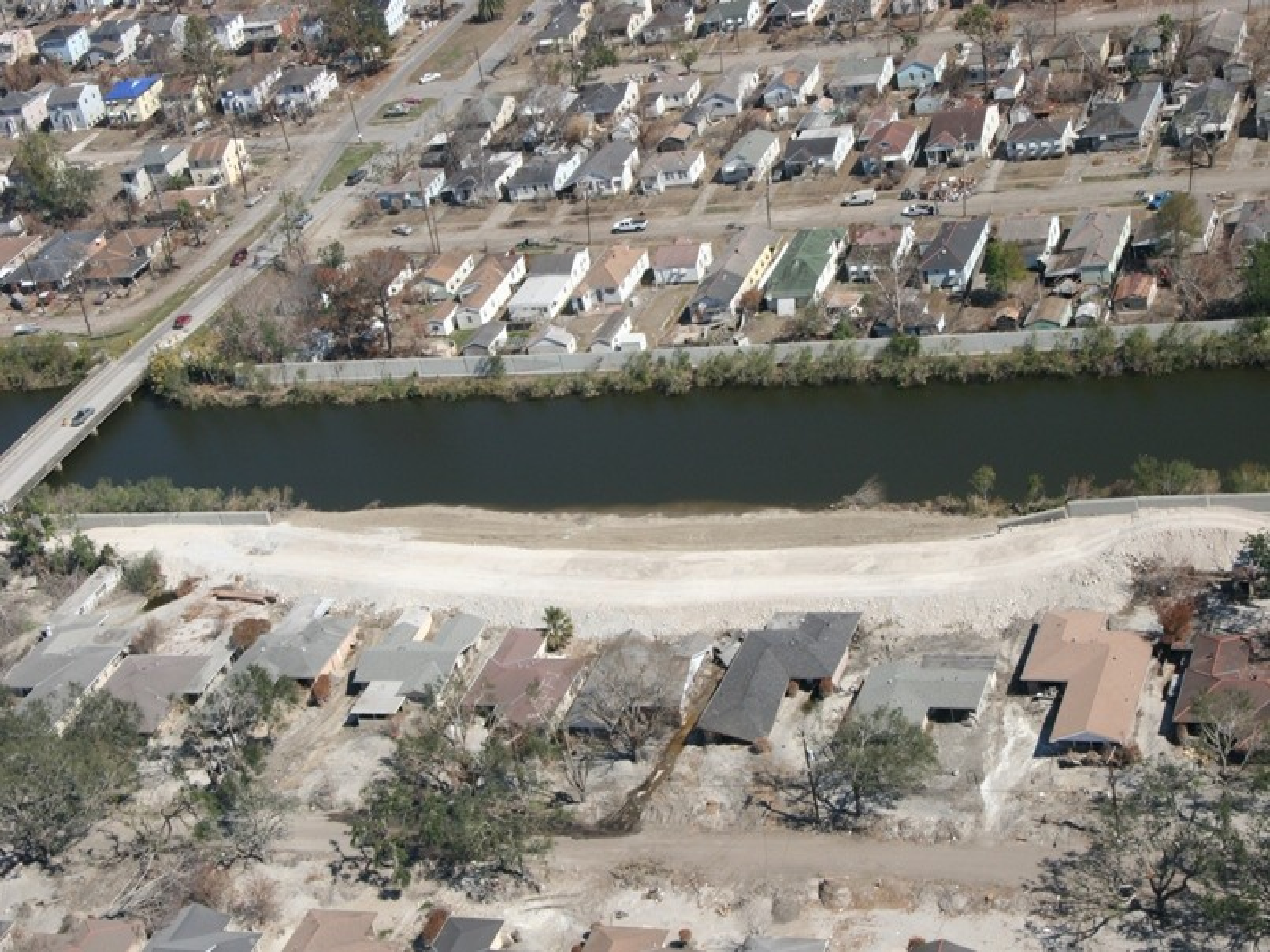


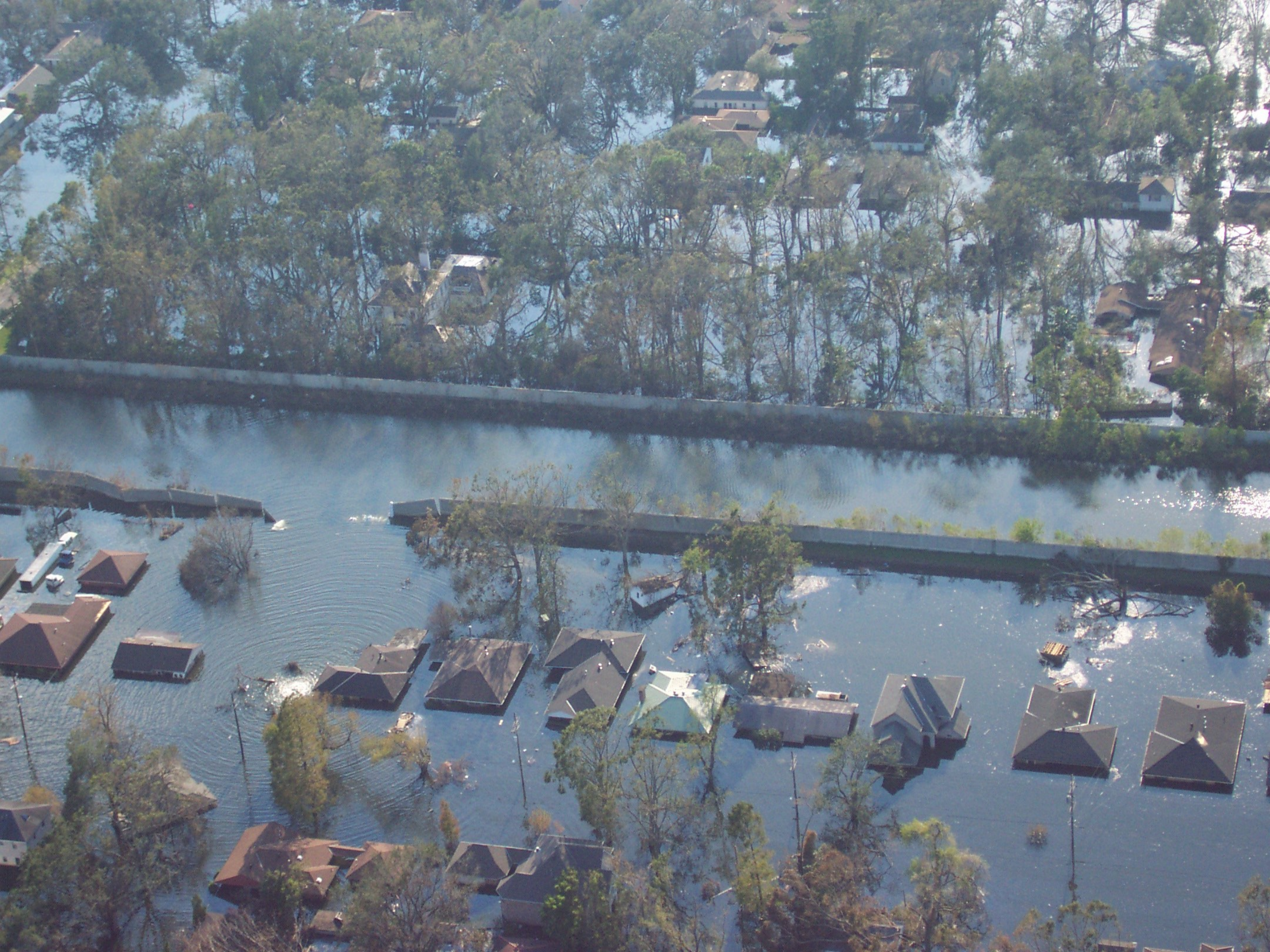


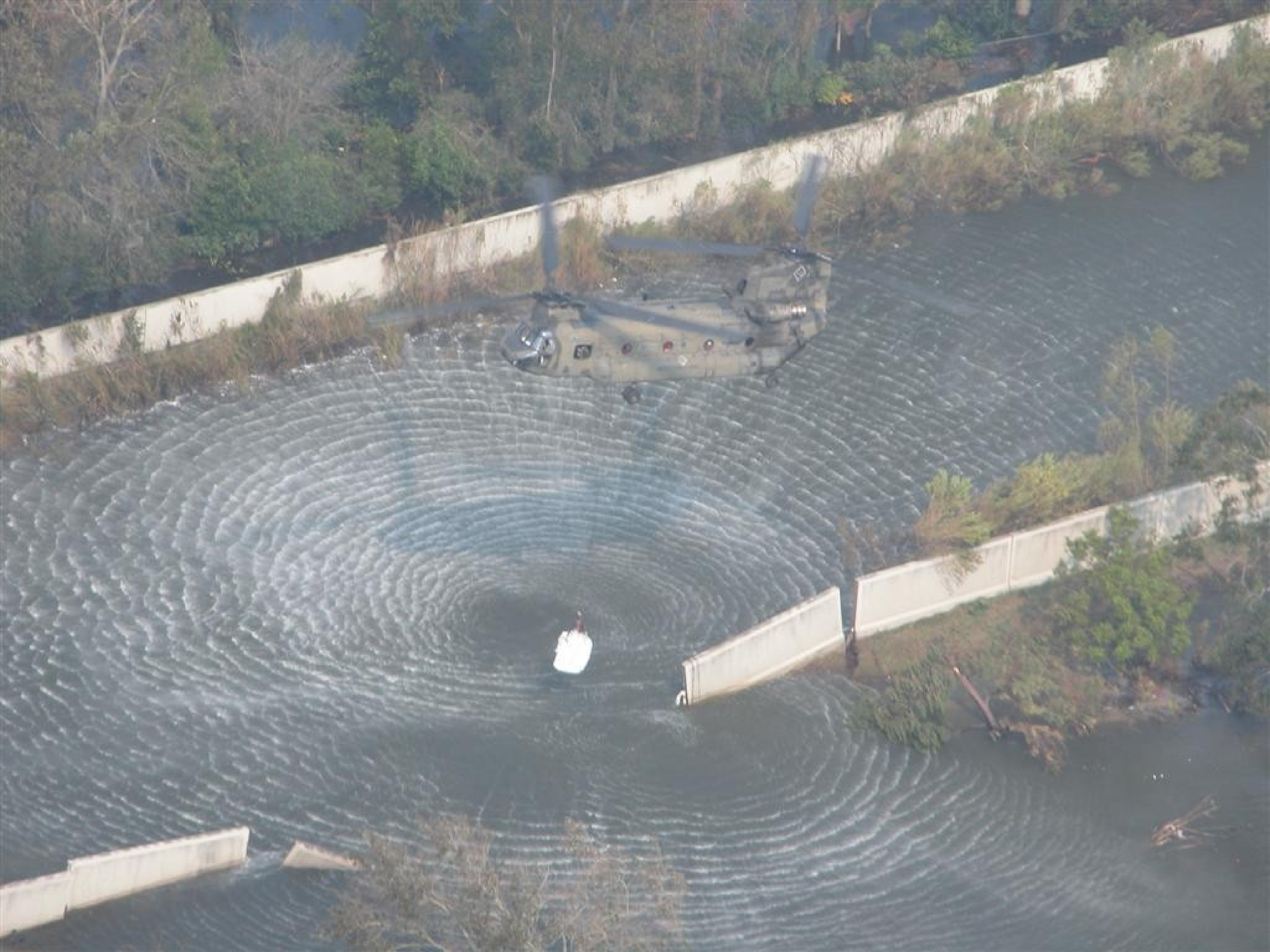


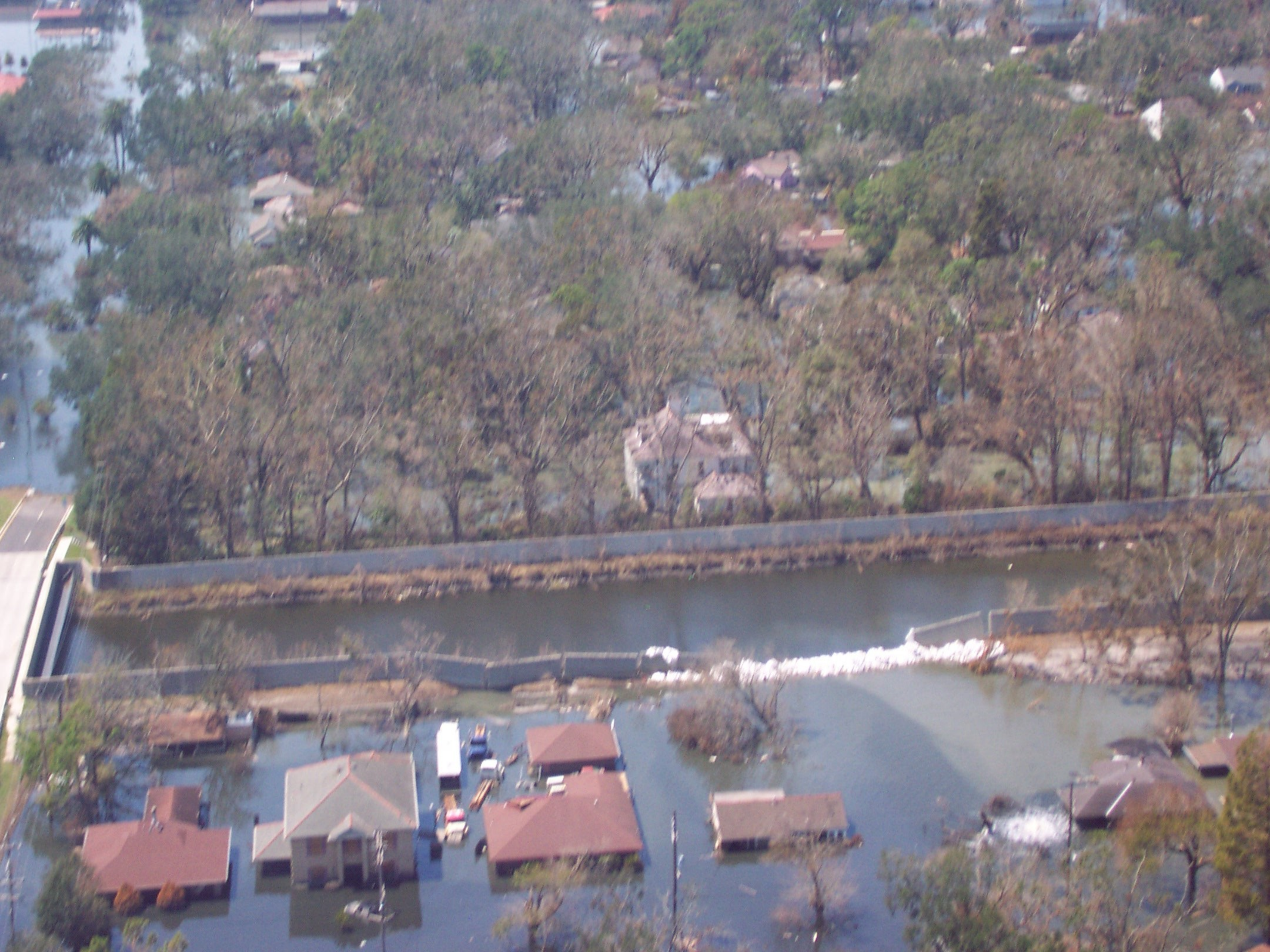


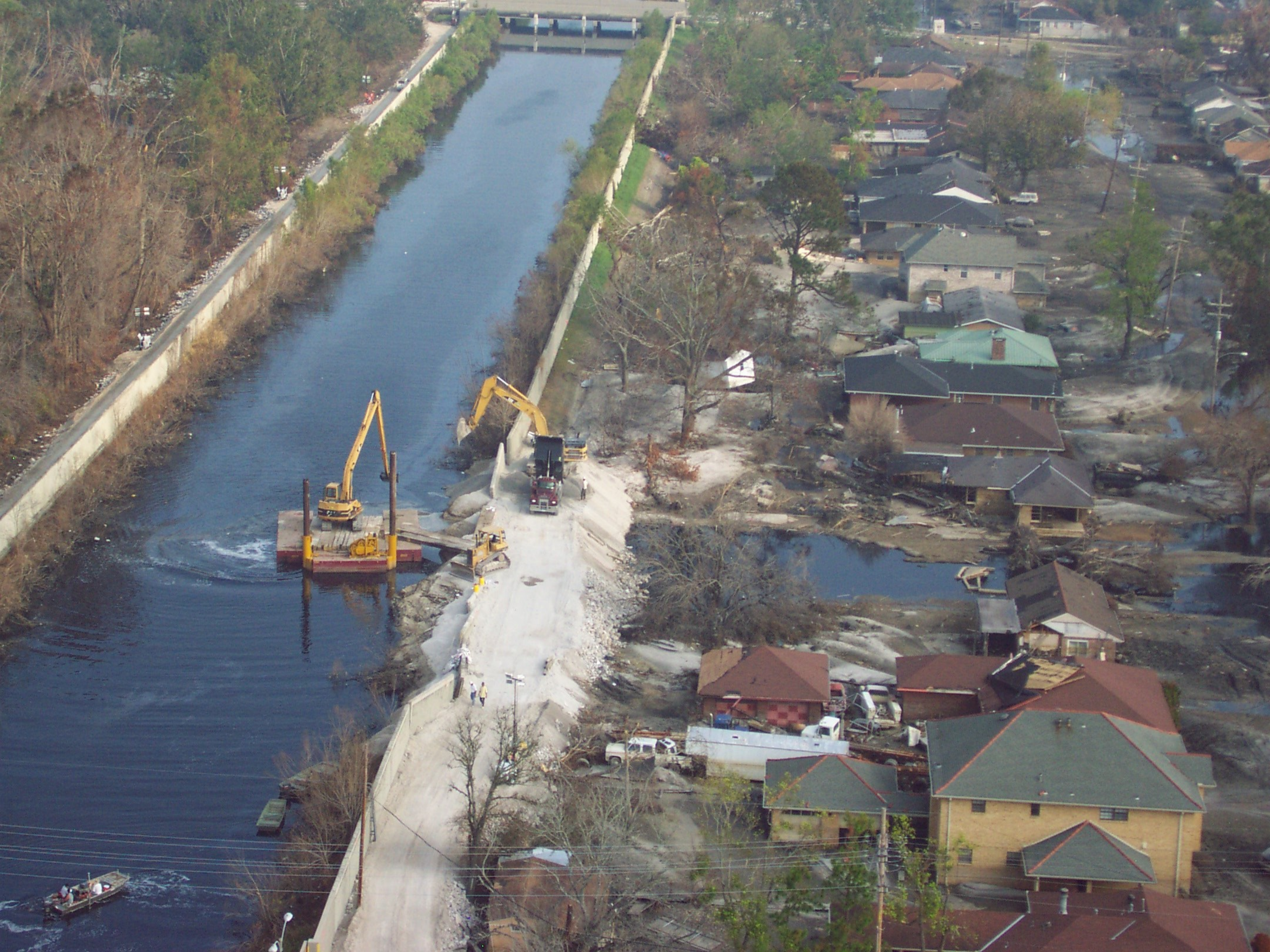


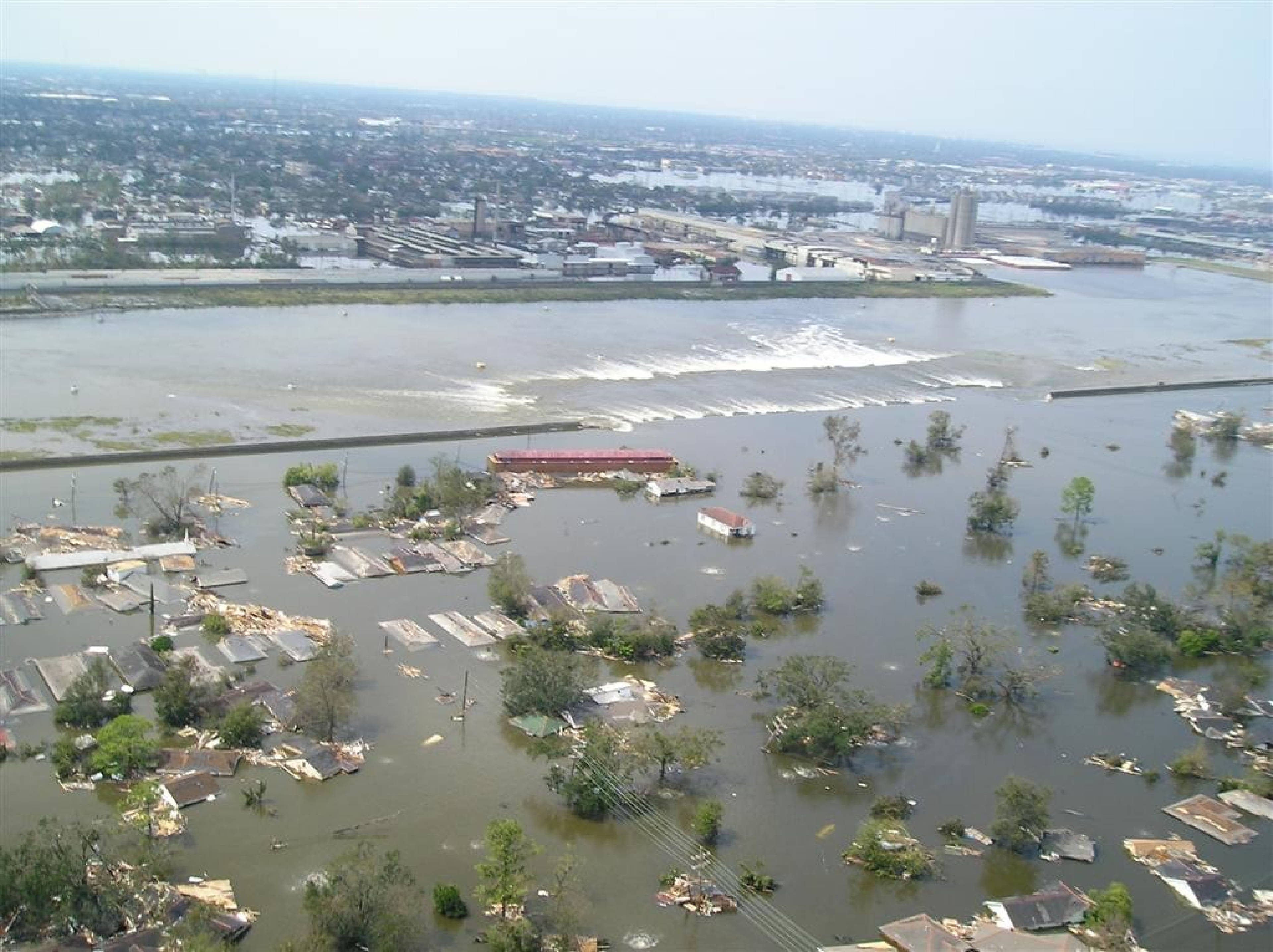


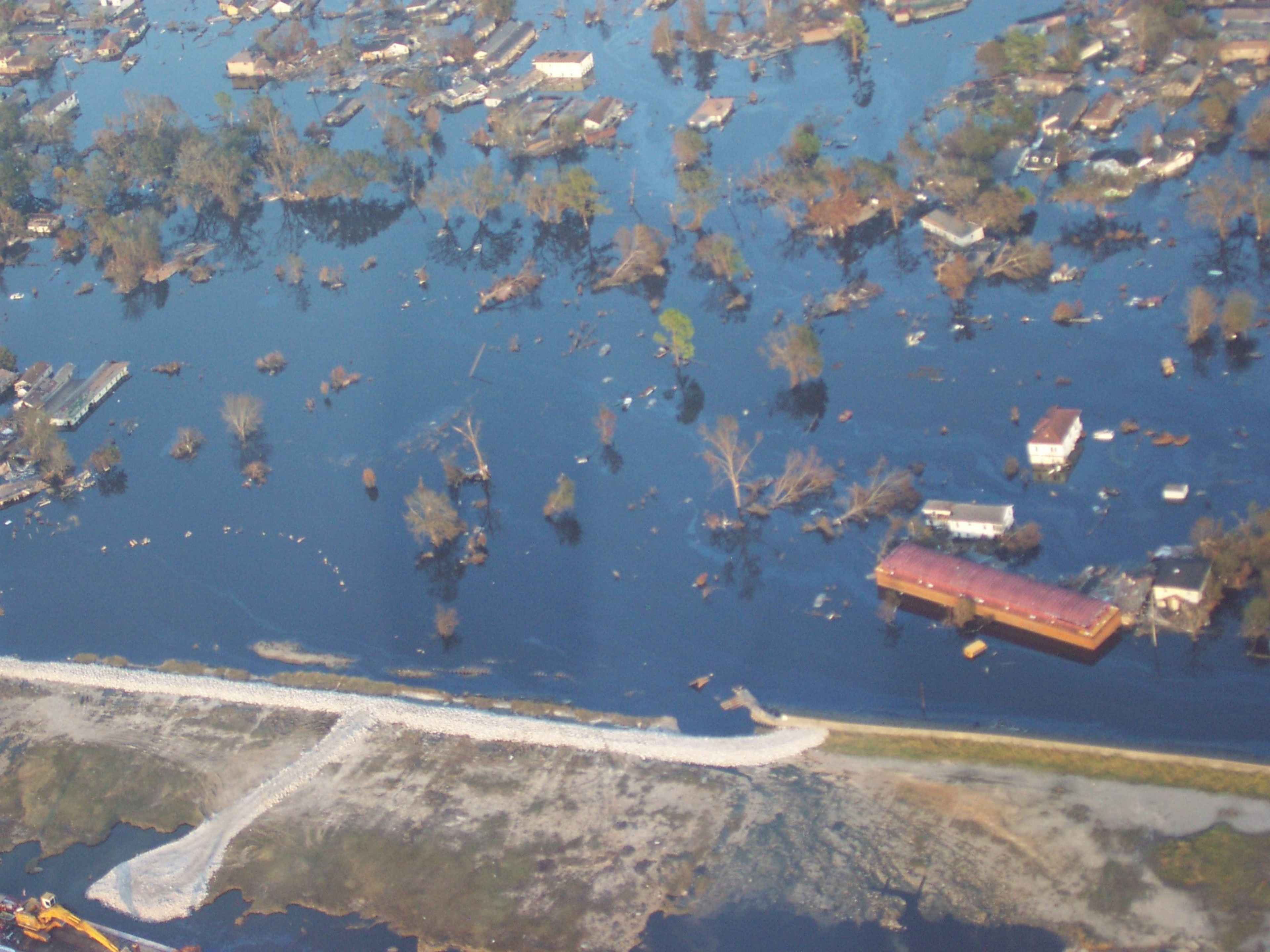


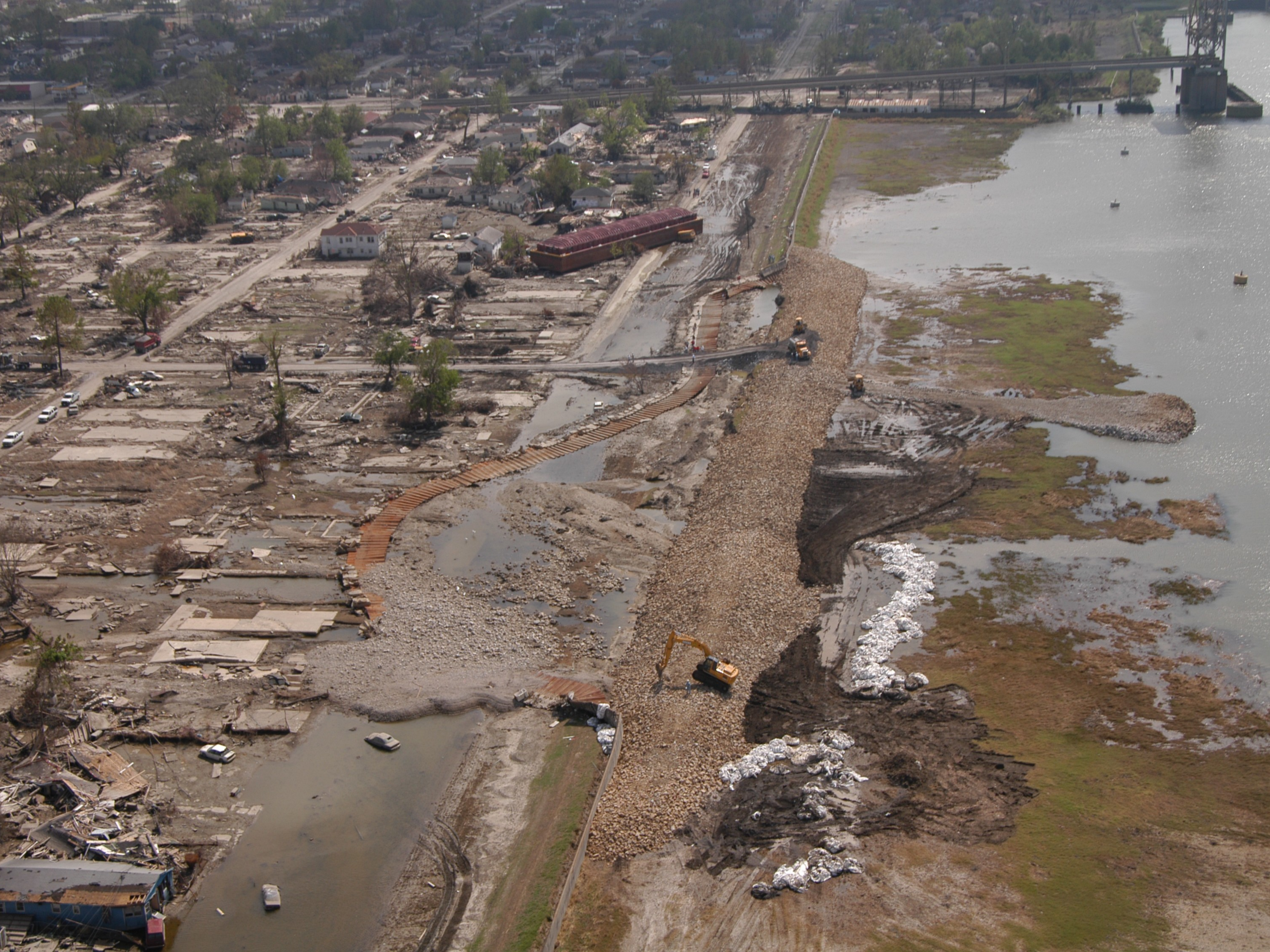


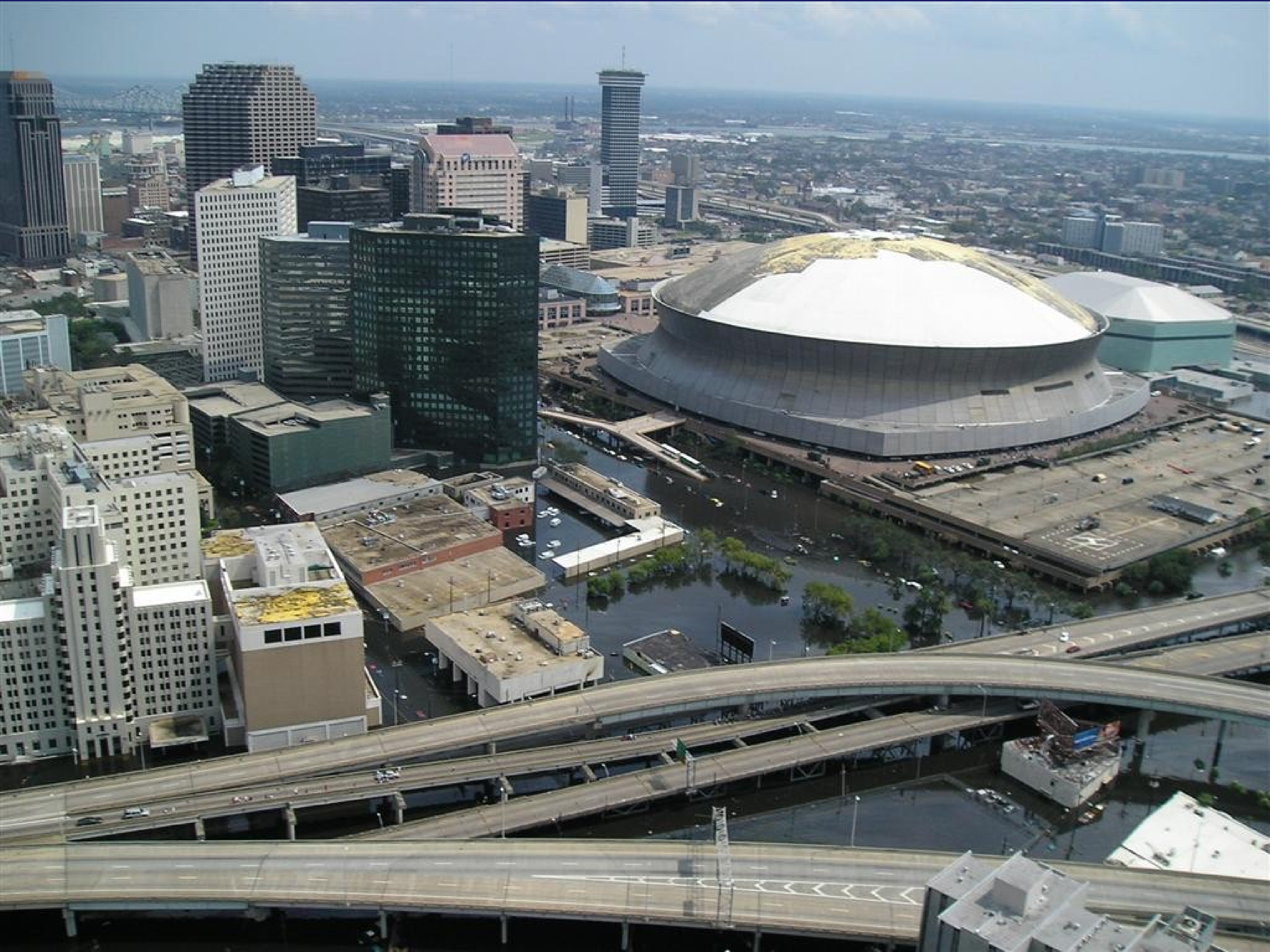


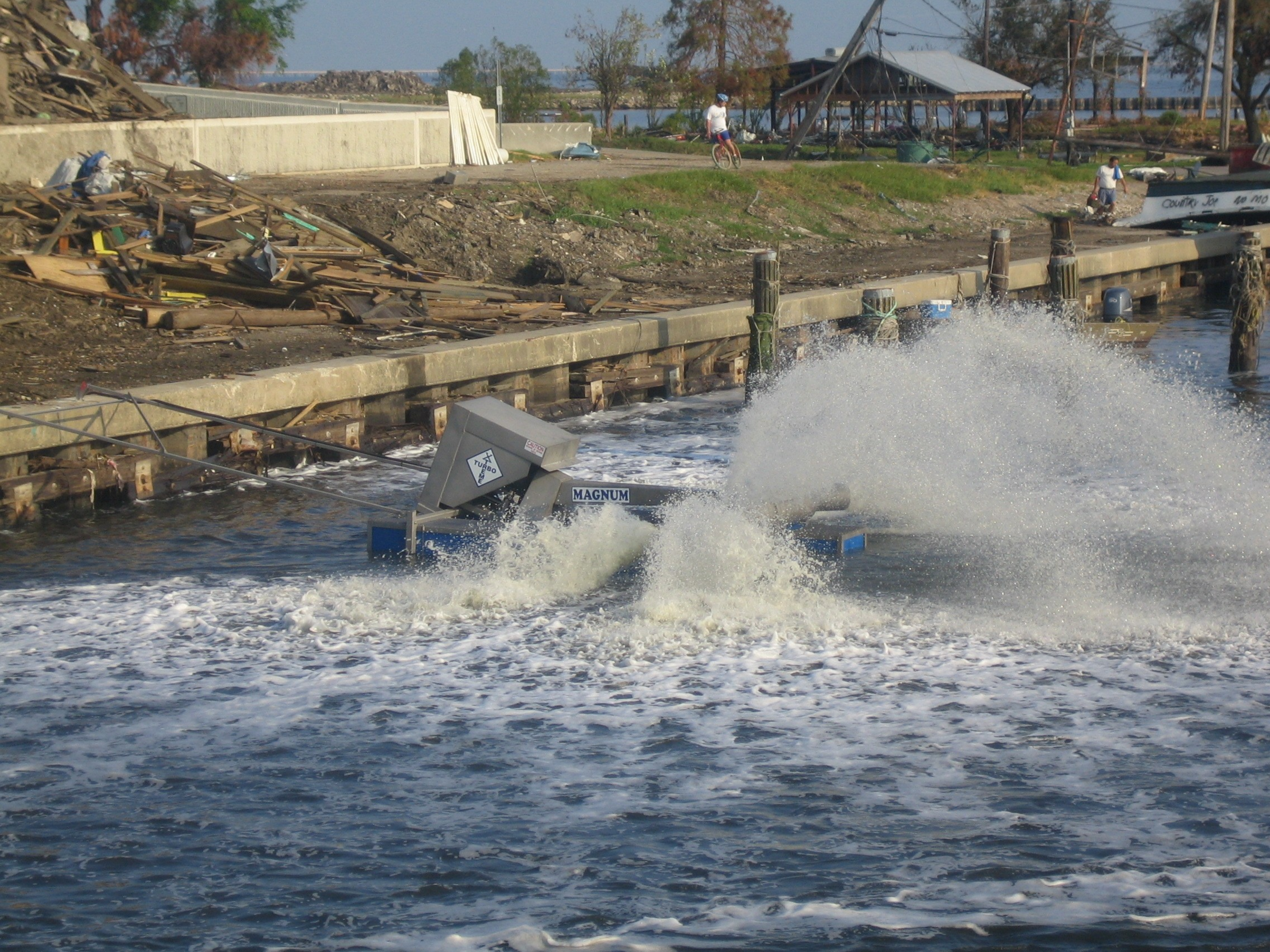











Country Joe
TURBO
CAUTION
MAGNUM

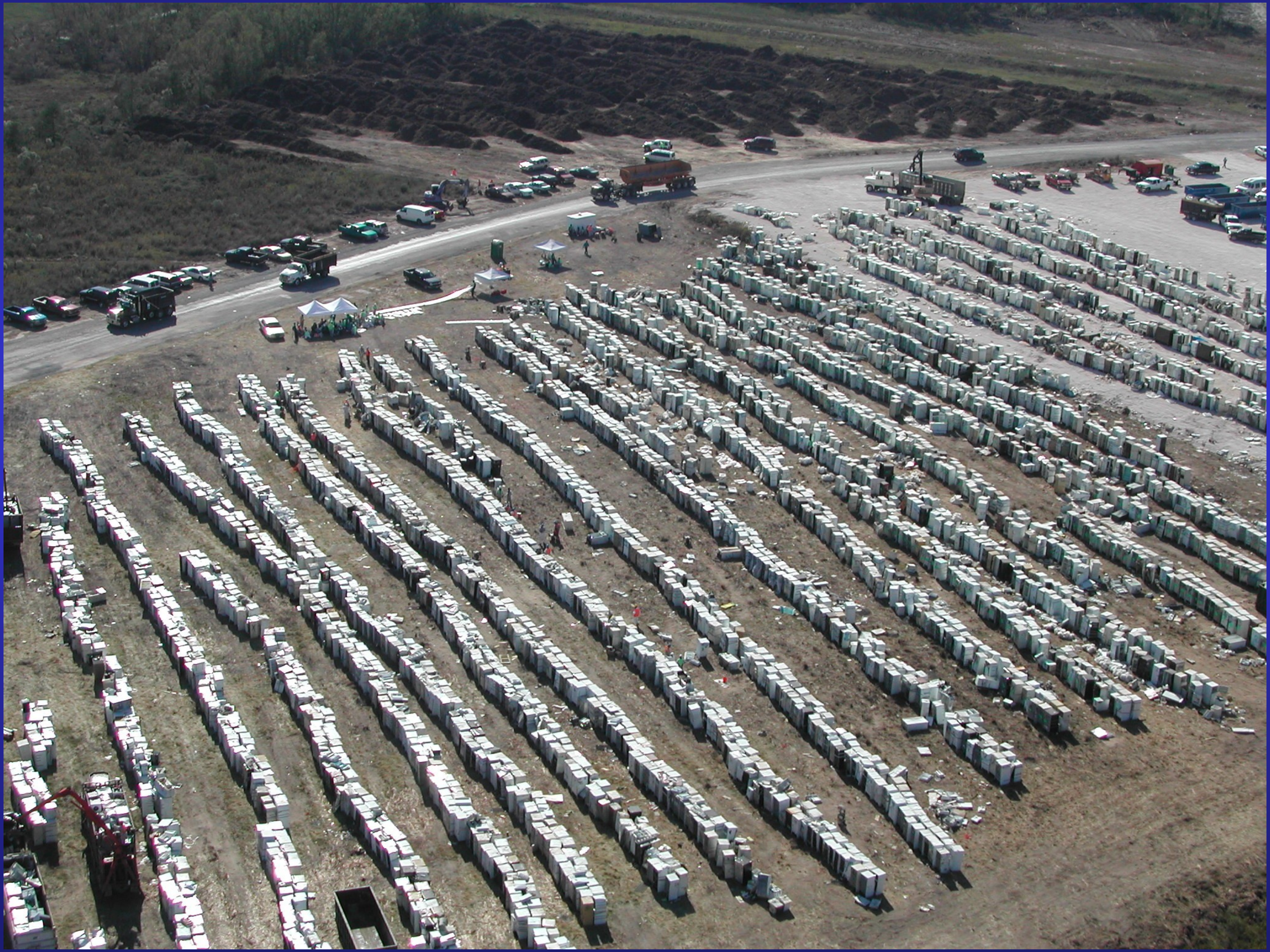
Drained 250+ Billion Gallons of Water

Repaired Nine Major Breaches

Provided Near Term Protection

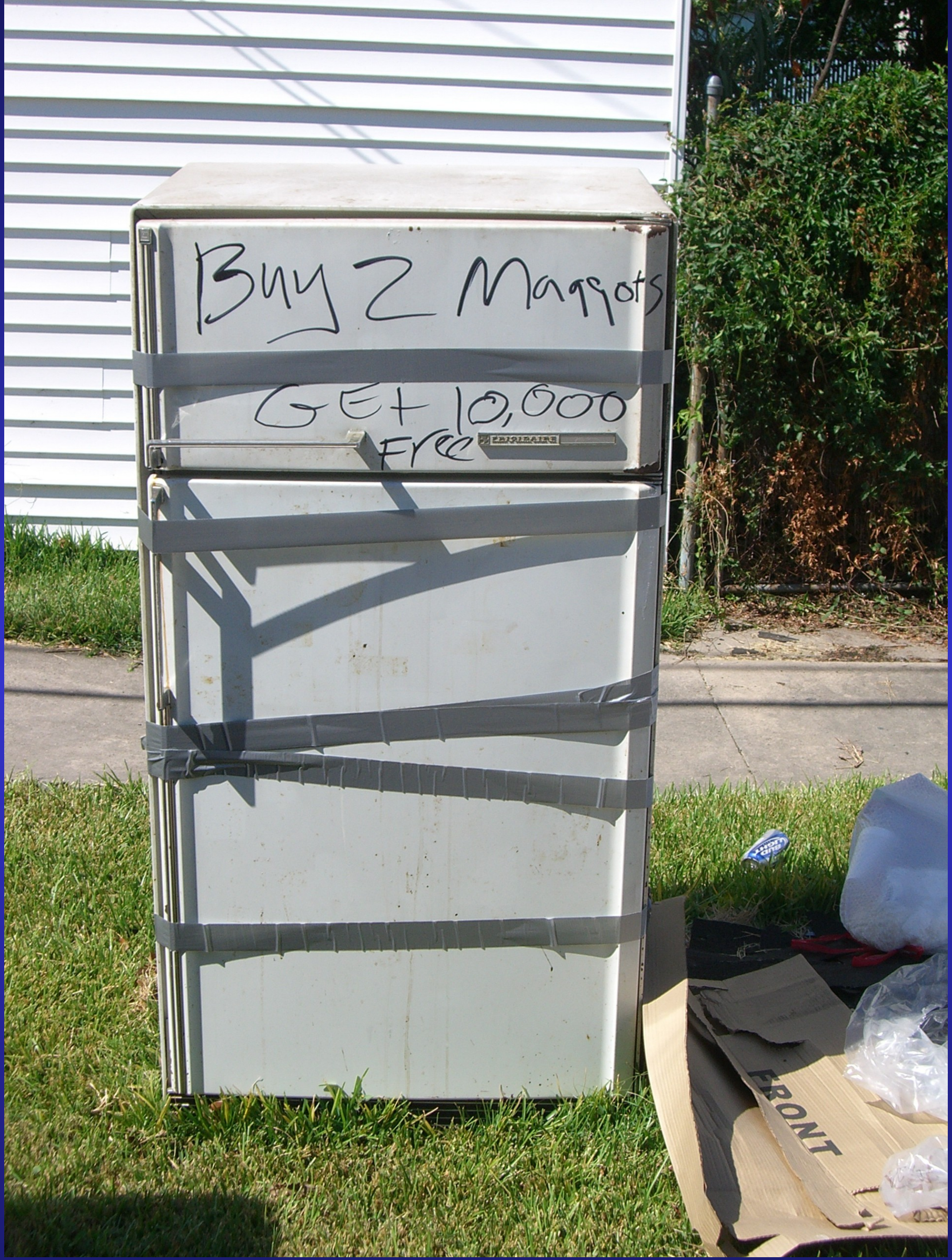
The Big Easy

Refrigerator Graveyard



US Army Corps of Engineers ®

I went looting in New Orleans and all I got was this Stinkin' FRIDGE!
VOODO GOD DOG USA YES NOW 5115
16105


Buy 2 Maggots
Get 10,000 Free
FRIGIDAIRE
FRONT

MY
TUMMY
HURTS

Canon
CABLE CROSSING
U.S.ARMY

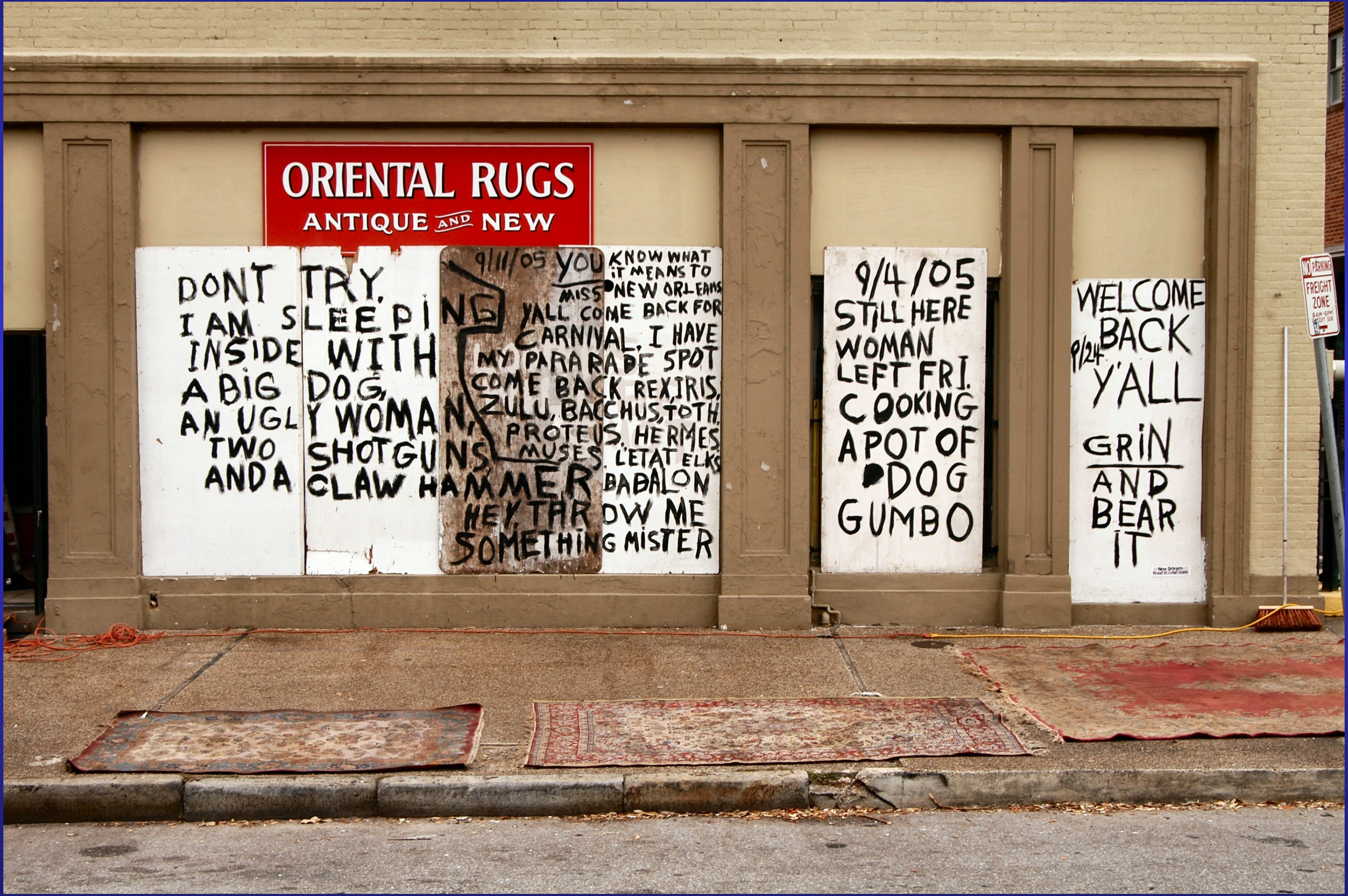
CNN
Hi MITC
xoxoxo
-Soledad

US Army Corps of Engineers ®

TASK FORCE HOPE

Hi Mitc
xoxoxo
-Soledad

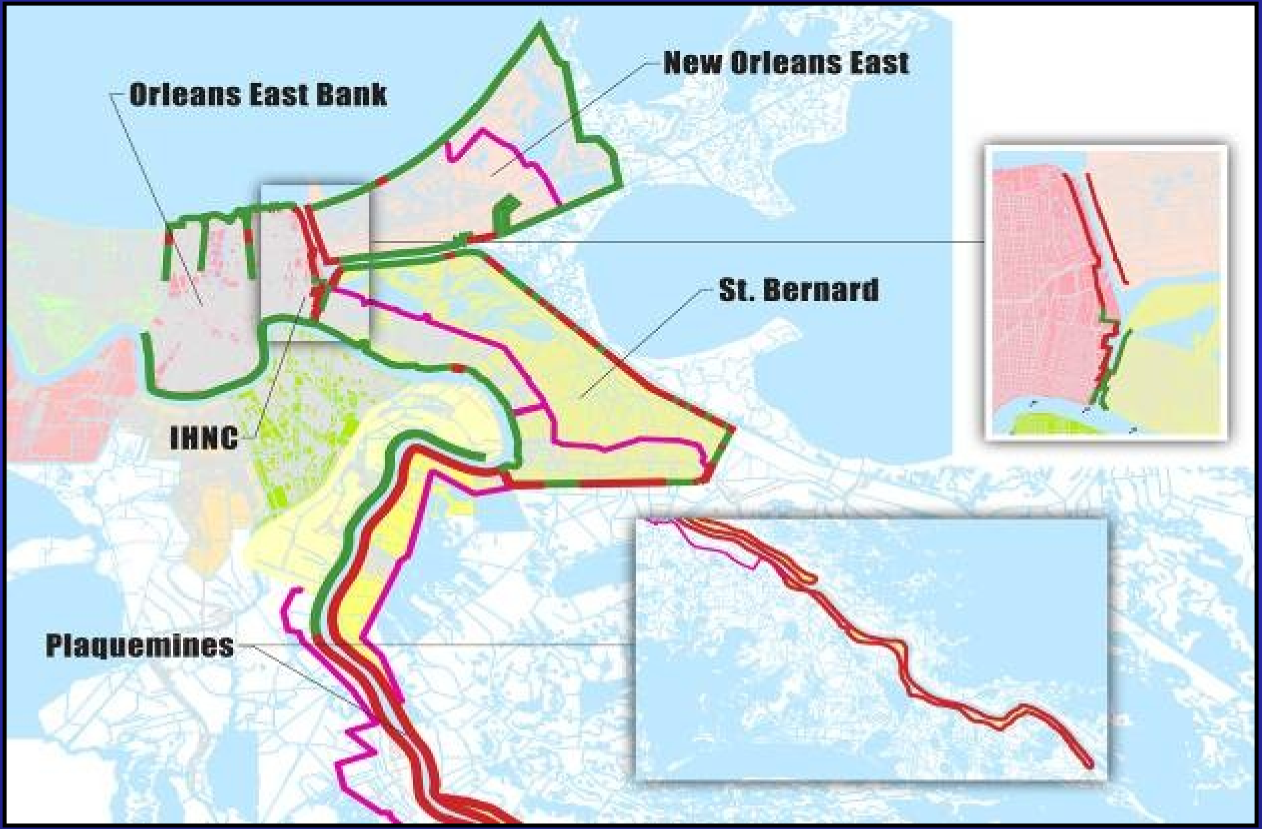
One Team: Relevant, Ready, Responsive, Reliable


ORIENTAL RUGS
ANTIQUE AND NEW
DONT TRY. I AM SLEEPING INSIDE WITH A BIG DOG, AN UGLY WOMAN, TWO SHOTGUNS AND A CLAW HAMMER
9/11/05 YOU KNOW WHAT IT MEANS TO MISS NEW ORLEANS YALL COME BACK FOR CARNIVAL. I HAVE MY PARARADE SPOT COME BACK REX, IRIS, ZULU, BACCHUS, TOTH, PROTEUS, HERMES, MUSES, L'ETAT ELKS BABALON HEY, THROW ME SOMETHING MISTER
9/4/05 STILL HERE WOMAN LEFT FRI. COOKING A POT OF DOG GUMBO
WELCOME BACK 9/24 Y'ALL GRIN AND BEAR IT
NO PARKING
FREIGHT ZONE

Back-up Slides

US Army Corps
of Engineers®

Hurricane Protection System Restoration Program Summary


New Orleans East
Orleans East Bank
St. Bernard
IHNC
Plaquemines

Hurricane Protection System
- 284 miles: Federal levees / floodwalls
- 71 pump stations

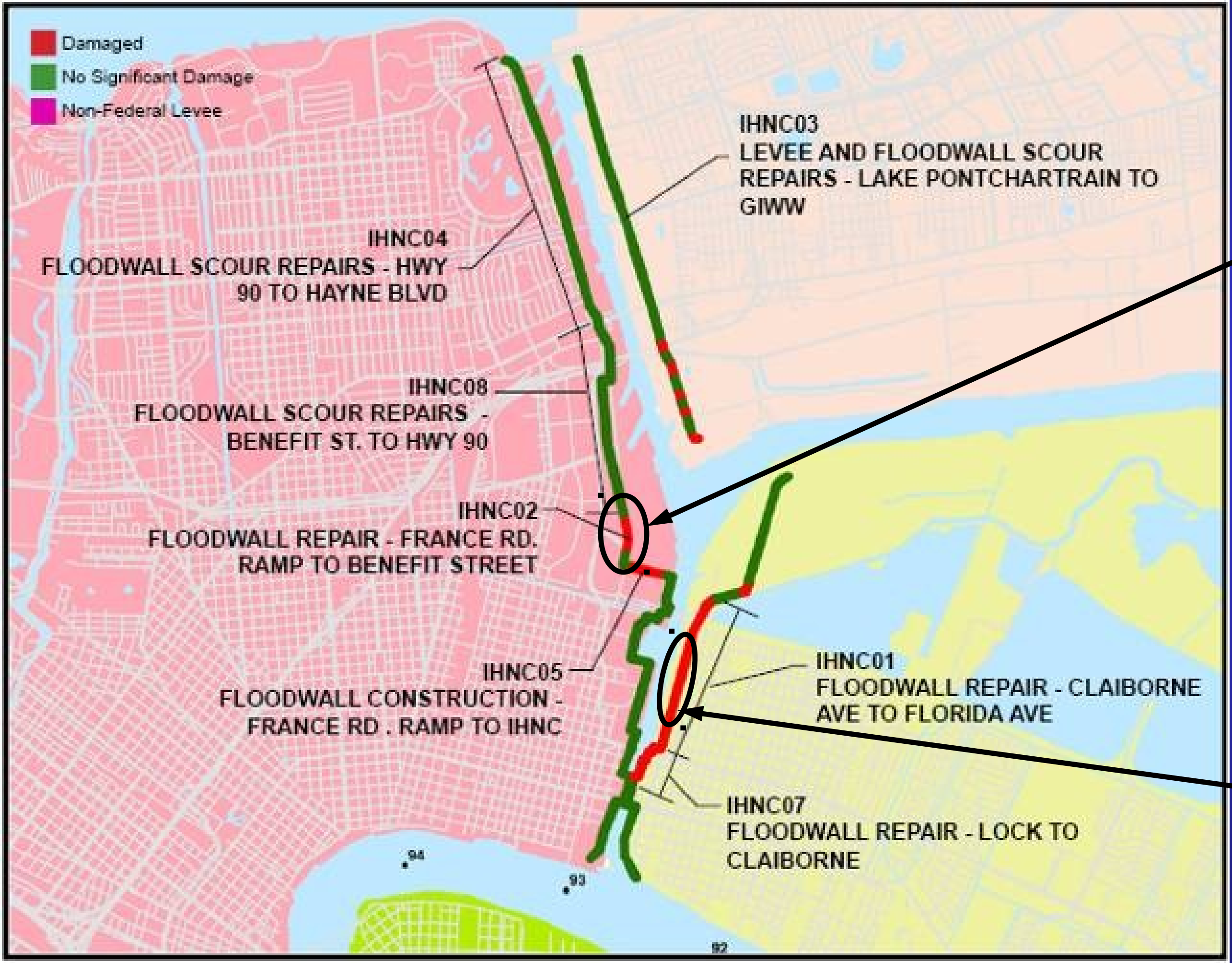
Damage
- 169 miles: Federal levees / floodwalls
- 34 pump stations

Cost
- $ 1.3 Billion

Hurricane Damage Rep

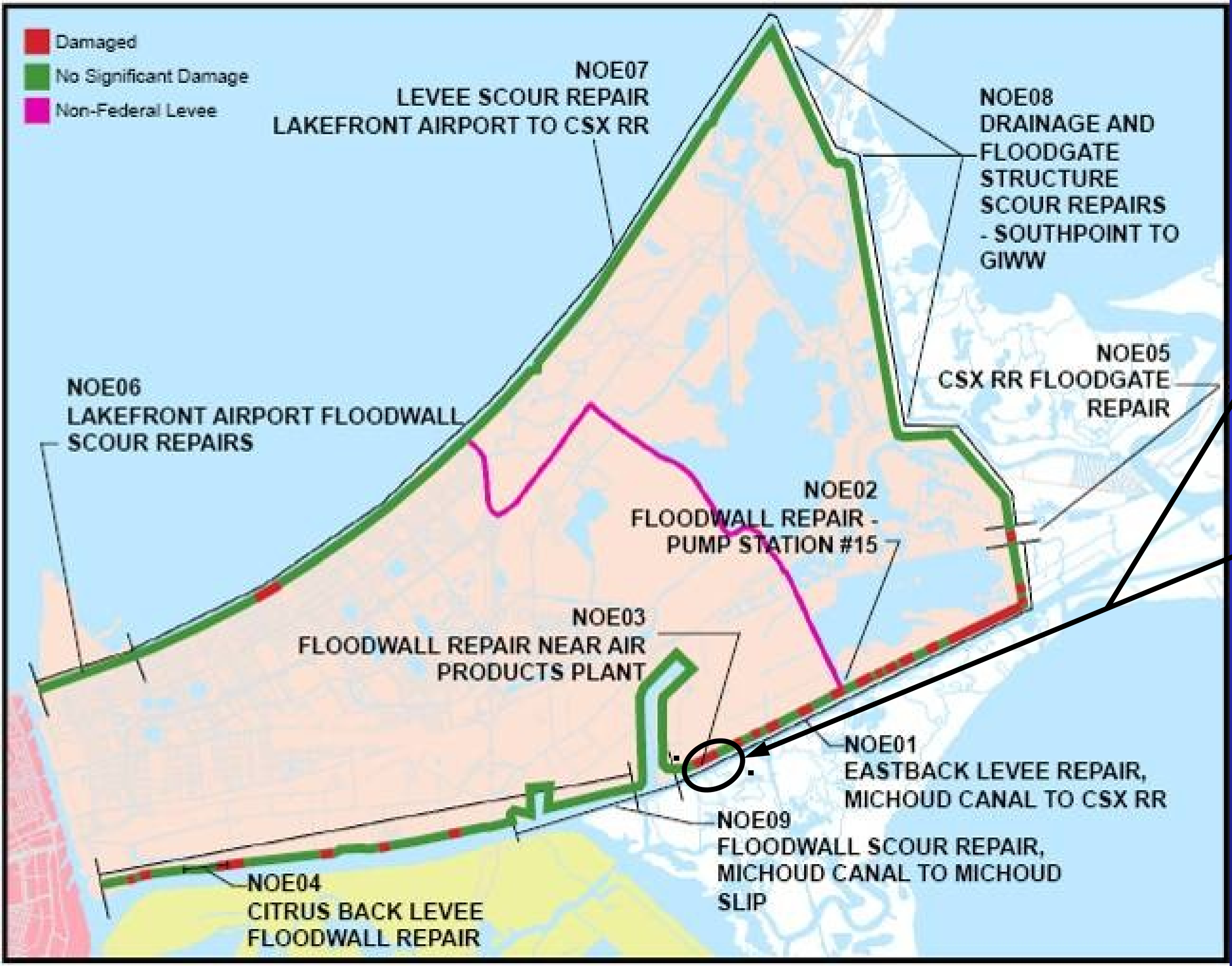
15 % Complete

Inner Harbor Navigation Canal


🟥 Damaged
🟩 No Significant Damage
🟪 Non-Federal Levee
IHNC03
LEVEE AND FLOODWALL SCOUR REPAIRS - LAKE PONTCHARTRAIN TO GIWW
IHNC04
FLOODWALL SCOUR REPAIRS - HWY 90 TO HAYNE BLVD
IHNC08
FLOODWALL SCOUR REPAIRS - BENEFIT ST. TO HWY 90
IHNC02
FLOODWALL REPAIR - FRANCE RD. RAMP TO BENEFIT STREET
IHNC05
FLOODWALL CONSTRUCTION - FRANCE RD . RAMP TO IHNC
IHNC01
FLOODWALL REPAIR - CLAIBORNE AVE TO FLORIDA AVE
IHNC07
FLOODWALL REPAIR - LOCK TO CLAIBORNE
94
93
92

18 % Complete

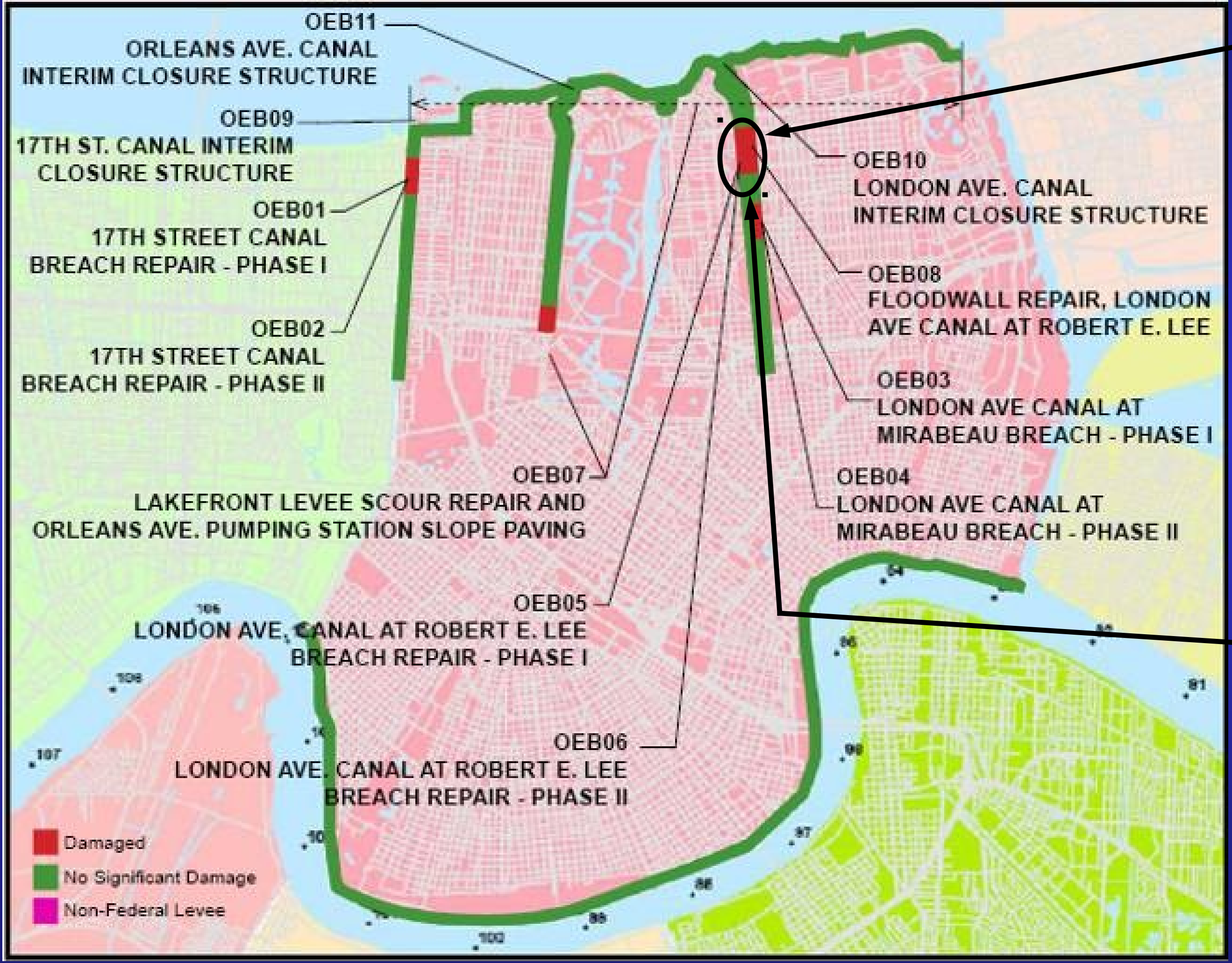
New Orleans East


🟥 Damaged
🟩 No Significant Damage
🟪 Non-Federal Levee
NOE07
LEVEE SCOUR REPAIR
LAKEFRONT AIRPORT TO CSX RR
NOE08
DRAINAGE AND FLOODGATE STRUCTURE SCOUR REPAIRS - SOUTHPOINT TO GIWW
NOE05
CSX RR FLOODGATE REPAIR
NOE06
LAKEFRONT AIRPORT FLOODWALL SCOUR REPAIRS
NOE02
FLOODWALL REPAIR - PUMP STATION #15
NOE03
FLOODWALL REPAIR NEAR AIR PRODUCTS PLANT
NOE01
EASTBACK LEVEE REPAIR, MICHOUD CANAL TO CSX RR
NOE09
FLOODWALL SCOUR REPAIR, MICHOUD CANAL TO MICHOUD SLIP
NOE04
CITRUS BACK LEVEE FLOODWALL REPAIR

30 % Complete

US Army Corps
of Engineers ®

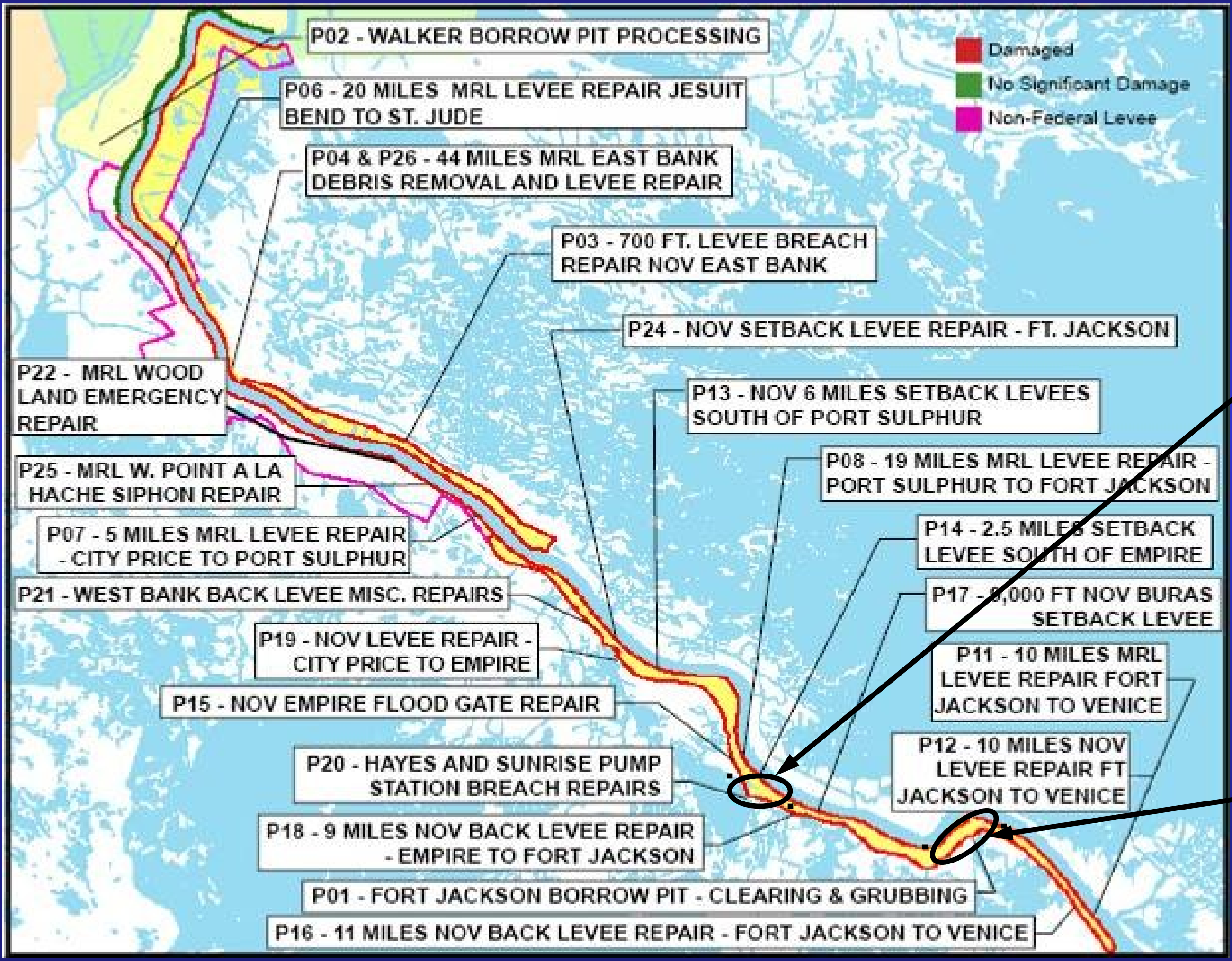
Orleans East Bank


OEB11
ORLEANS AVE. CANAL
INTERIM CLOSURE STRUCTURE
OEB09
17TH ST. CANAL INTERIM
CLOSURE STRUCTURE
OEB01
17TH STREET CANAL
BREACH REPAIR - PHASE I
OEB02
17TH STREET CANAL
BREACH REPAIR - PHASE II
OEB10
LONDON AVE. CANAL
INTERIM CLOSURE STRUCTURE
OEB08
FLOODWALL REPAIR, LONDON
AVE CANAL AT ROBERT E. LEE
OEB03
LONDON AVE CANAL AT
MIRABEAU BREACH - PHASE I
OEB07
LAKEFRONT LEVEE SCOUR REPAIR AND
ORLEANS AVE. PUMPING STATION SLOPE PAVING
OEB04
LONDON AVE CANAL AT
MIRABEAU BREACH - PHASE II
OEB05
LONDON AVE. CANAL AT ROBERT E. LEE
BREACH REPAIR - PHASE I
OEB06
LONDON AVE. CANAL AT ROBERT E. LEE
BREACH REPAIR - PHASE II
🟥 Damaged
🟩 No Significant Damage
🟪 Non-Federal Levee

10 % Complete

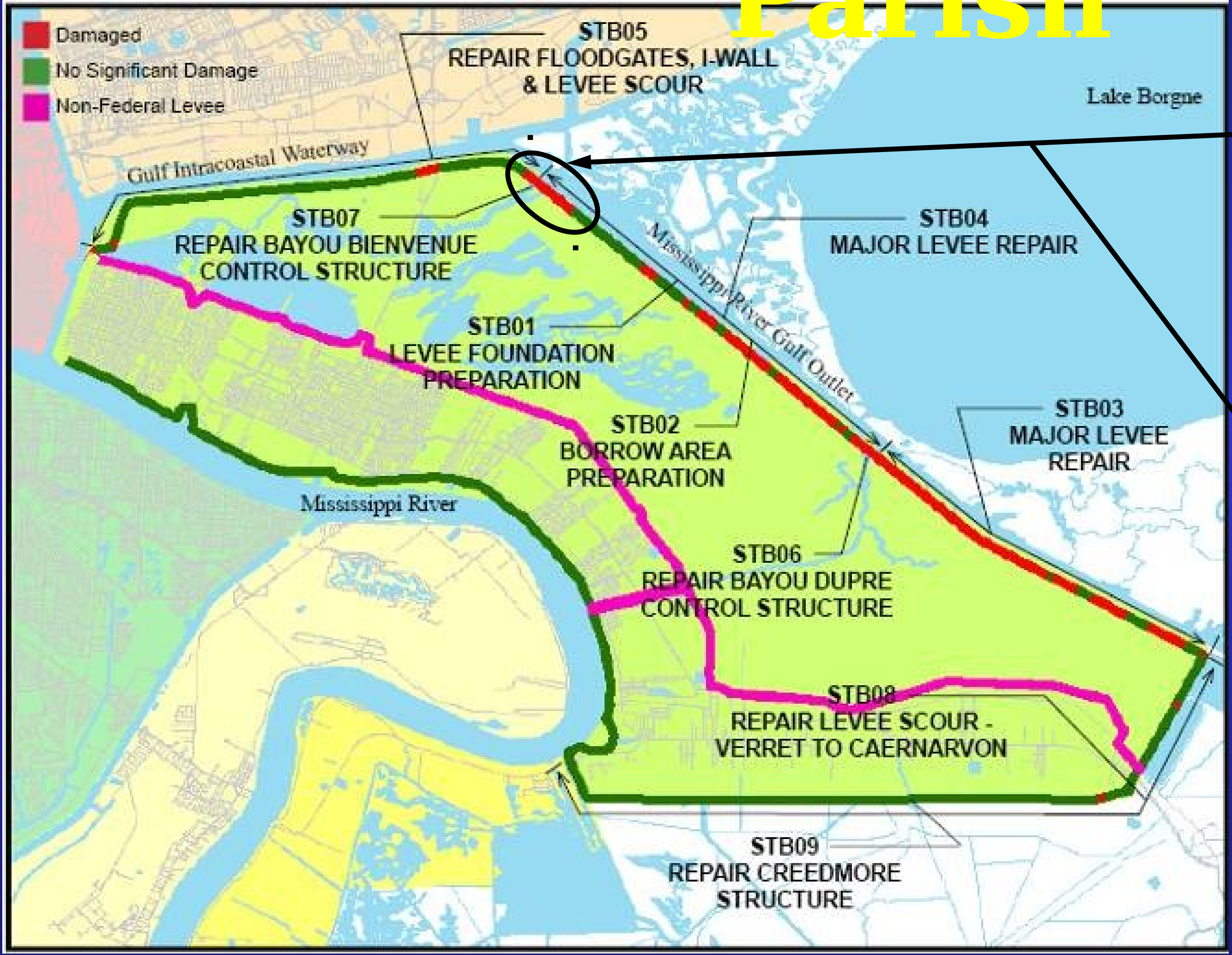
US Army Corps
of Engineers ®

Plaquemines Pari


P02 - WALKER BORROW PIT PROCESSING
P06 - 20 MILES MRL LEVEE REPAIR JESUIT BEND TO ST. JUDE
P04 & P26 - 44 MILES MRL EAST BANK DEBRIS REMOVAL AND LEVEE REPAIR
P03 - 700 FT. LEVEE BREACH REPAIR NOV EAST BANK
P24 - NOV SETBACK LEVEE REPAIR - FT. JACKSON
P13 - NOV 6 MILES SETBACK LEVEES SOUTH OF PORT SULPHUR
P08 - 19 MILES MRL LEVEE REPAIR - PORT SULPHUR TO FORT JACKSON
P14 - 2.5 MILES SETBACK LEVEE SOUTH OF EMPIRE
P17 - 8,000 FT NOV BURAS SETBACK LEVEE
P11 - 10 MILES MRL LEVEE REPAIR FORT JACKSON TO VENICE
P12 - 10 MILES NOV LEVEE REPAIR FT JACKSON TO VENICE
P22 - MRL WOOD LAND EMERGENCY REPAIR
P25 - MRL W. POINT A LA HACHE SIPHON REPAIR
P07 - 5 MILES MRL LEVEE REPAIR - CITY PRICE TO PORT SULPHUR
P21 - WEST BANK BACK LEVEE MISC. REPAIRS
P19 - NOV LEVEE REPAIR - CITY PRICE TO EMPIRE
P15 - NOV EMPIRE FLOOD GATE REPAIR
P20 - HAYES AND SUNRISE PUMP STATION BREACH REPAIRS
P18 - 9 MILES NOV BACK LEVEE REPAIR - EMPIRE TO FORT JACKSON
P01 - FORT JACKSON BORROW PIT - CLEARING & GRUBBING
P16 - 11 MILES NOV BACK LEVEE REPAIR - FORT JACKSON TO VENICE
🟥 Damaged
🟩 No Significant Damage
🟪 Non-Federal Levee

16 % Complete

Saint Bernard Parish


🟥 Damaged
🟩 No Significant Damage
Non-Federal Levee
STB05
REPAIR FLOODGATES, I-WALL & LEVEE SCOUR
Lake Borgne
Gulf Intracoastal Waterway
STB07
REPAIR BAYOU BIENVENUE CONTROL STRUCTURE
STB04
MAJOR LEVEE REPAIR
Mississippi River Gulf Outlet
STB01
LEVEE FOUNDATION PREPARATION
STB02
BORROW AREA PREPARATION
STB03
MAJOR LEVEE REPAIR
Mississippi River
STB06
REPAIR BAYOU DUPRE CONTROL STRUCTURE
STB08
REPAIR LEVEE SCOUR - VERRET TO CAERNARVON
STB09
REPAIR CREEDMORE STRUCTURE

19 % Complete